



GOAL machines

(single-cylinder models, for men's socks)

GUIDE OF USER INTERFACE



Models equipped with PCB 2009

Models equipped with PCB 2014

ENGLISH



Version 2.5



Attention

**KEEP THIS MANUAL AND HAND IT OVER TO
ANY NEW OWNERS.**

Date 2018.02

GUIDE OF USER INTERFACE

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Introduction

Foreword

This manual contains the operations that the user can perform via the control panel.
The machine can be controlled via a series of display pages (windows).
Via the keyboard/ Display you can view windows, organized into menus and submenus, and program the machine.

The machine displays the progress of operations with messages, icons and lights.
The manual provides the information required to read the machine communication signals.
Further details on the message contents are provided in a specific table.

To this end, please refer to: **STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL**

The models to which this document relates

Model	Graphitron
GL544	GL544
GL544CTE	GL544
GL615	GL615
GL615CTE	GL615
GL616	G616
GL616CTE	G616
GL616D	G616D
GL616DCTE	G616D
GL625	GL625
GL625CTE	GL625
GK544	GL544
GK544CTE	GL544
GK615	GL615
GK615CTE	GL615
GK616	G616
GK616CTE	G616
GK616D	G616D
GK616DCTE	G616D
GK625	GL625
GK625CTE	GL625

Model

Name displayed on screen.

Graphitron

Name displayed on computer.

Models

GL

Models equipped with PCB 2009

Models equipped with PCB 2014

"Touch screen" colour display + Keyboard

GK

Models equipped with PCB 2014

"Touch screen" colour display

Models CTE = Models F , H = Stitch-by-stitch models. (S by S) = Machine equipped with: Seaming Robot

Glossary

Epron System is the part of the machine software common to all the machines in the series. Epron Custom is the part specific for the model.

Machine software and machine epron are synonymous.

This software is the most important, it must be compatible with all the other software of the machine (CAN, EDSP, GRAPHITRON, etc.).

In fact: Each machine programme is associated with a software package for all the devices mounted. The software package is called Extrafile.

[The machine software Update to a specific version requires that are provided all the software files relating to that software version (Update.up, EDSPxxxx.up, 4mppxxxx.up, edd_xxxx.up, yoyoxxx.up, ...).]

GRAPHITRON is the computer designed with the software used to create specific chains for each machine model. (Graphitron-6/ Digraph-3 Plus)

[Check the compatibility with the machine software.]

Chain, chain program, article, sock or coded program are synonymous.

The step (chain step) is the programming unit. It contains the list of operations to perform during a cylinder revolution.

The article is comprised of a certain number of chain steps.

The articles come with a ".co" extension.

The zone (or block) is a sequence of steps with a common parameter. For the meaning and types of zones, refer to GRAPHITRON programming.

Chain (Linking p.) sequence indicates the programming of a cyclic sequence of articles via the Graphitron.

The article chain (sequence) has the ".cn" extension.

The Course is the single round of knitting fabric. The cylinder by turning creates knitting fabric (tissue): every round creates a course of tissue for every Feed (Yarn feeder). For example, a 2 Feeds machine, working with both the Feeds, creates 2 courses for each round of cylinder.

The sensor is a switch that is opened (or closed) by a physical dimension.
In practice the sensor provides the software a signal.

The sensors transmit electrical signals to the processor to stop the machine in case of failure.
Therefore: The input (and/or sensor) is also called "stop".

Some sensors may signal a failure by opening up and others by closing down.

By false error is meant a defect signal not generated by an actually dangerous situation but only electric disturbances and/or hardware defects.

Legend for ... Autotest of inputs

The sensor is a switch that is opened (or closed) by a physical dimension.

- **Green Led** = Input to ground (0 Vdc)
- **Red Led** = input is NOT to Ground

Symbology

For quick consultation of the manual, a few graphic symbols have been adopted.
The keys in the text are shown between square brackets. (**if necessary**).

Conventional signs used



This symbol has been adopted to highlight the information of significance.



This symbol shows the operations to be performed with extra care or basic information.



This symbol indicates the manoeuvres not to be performed.



This symbol indicates mandatory procedures.

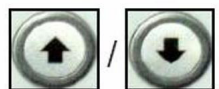


This symbol indicates basic information for operator safety.

Conventional signs, also used in the menus



When two keys are held down at the same time (key combination), an addition arithmetic operator (+) has been placed in between.



To indicate that two keys have the analogous, or opposite function (e.g. up and down) a division arithmetic operator (bar) has been placed in between.



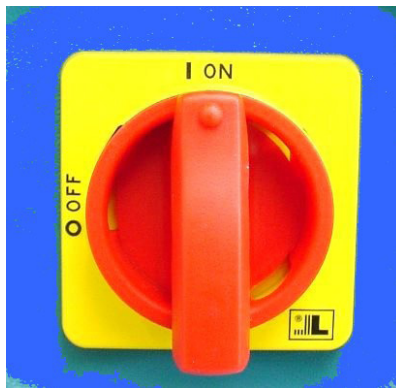
To indicate an interval or a group of keys, three dots (suspension dots) have been placed between the first and last element.



To indicate that a key can be pressed together with another, the addition arithmetic operator has been placed in brackets between them.

Switching on and off

When the connections have been made and the machine prepared, it can be switched on via the Main Switch.



How to run the machine

The machine can be controlled via a series of display pages (windows).

To get to a window you must press in succession some keys. (/ icons)

The sequence of keys used to go a menu is called:

Path to reach the window

For further information, refer to the item:

Navigating

To view how the section is structured, see the contents and/or enable the Bookmark view by opening the PDF file.

The windows are standardised by machine groups.

If for a model, an item is meaningless, it is disabled and will appear in grey.

On the other hand ... **If an item has grey only the button, it means that it cannot be activated or it is inaccessible , in that moment.**

You need to wait a few seconds.

Or ...

Make sure you have followed the steps correctly.

Example

See in this regard as reported under the item:

USB software management

In fact:

The menu can only be accessed after inserting the USB device.

In the event of any failures

In this case ... The machine automatically opens a dedicated window.

Concerning this see the menu:

Alarm

Error

Initial error

See also ...

STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL

In particular, refer to the paragraph:

Classification of messages

Path to reach the window

Quick menu

Help
DINEMA Trace

Welt raier and dial manuals
Bobbin end

Linker Motor

Linker motor Help

Password level

Management menu

Work menu

Change active size

Graduation menu

Mod. stitch q.ty by cm/inch (Rest CM zones / Rest zones Inch)
Set CM zone / Set zone Inch
Mod. stitch quality by step (Rest zones)
Set zone
Stretch modific. Percentage

Sinker cam cap menu (Rest modification menu)

Sinker pressure blocks (Rest zones)
Set zone
Sinker pressure step
Angle sinker cam cap blocks (Rest zones)
Set zone
Angle sinker cam cap step
Special heel zone step (Special heel rest zones)
Modify Start (Set zone)
Modify End (Set zone)
Sinker cap cam Offset Step (Special heel rest zones)
Change Forward (Set zone)
Change Backward (Set zone)

R

R-Help
R-Z

Stop *
R-F

Fn+C

Fn+C-Help

key

Space

Space-A

Space-A-A

Space-A-B

Space-A-B-A
Space-A-B-A-ê
Space-A-B-B
Space-A-B-B-ê
Space-A-B-C

Space-A-C

Space-A-C-A
Space-A-C-A-ê
Space-A-C-B
Space-A-C-C
Space-A-C-C-ê
Space-A-C-D
Space-A-C-E
Space-A-C-E-A
Space-A-C-E-B
Space-A-C-F
Space-A-C-F-A
Space-A-C-F-B

* = Hold down the button.

ê = Enter

p1, p2, etc. = Page 1, Page 2, etc

Elastic motors setting (Yarn modification)

Percentage yarn modification menu
Modify elastic 1 and 2 by percentage
Modify elastic in percentage
Yarn zone
Set zone

Modify economizations

Modify economizations on sigle zone

Yarns sliding menu

Yarns sliding setup
Enable yarns sliding control
Yarn sliding sensors identification
Parameters of sensors level
Parameters of sensors
Yarn sliding control help
Enable "optical" mode for each sensor
Identification of Scorfil added/removed sensors
Disabling of single sensor

Saw blade speed modification (Yarn zone)

Set zone

YOYO menu

Setup YOYO
General data setting
YOYO motor enabling
All-sizes modification enabling setup
YOYO numeration
YOYO manual
Absorption YOYO
Modify YOYO
Zone YOYO
YOYO single zone
Yarn management

External lighting

Modify raising dial zone

Space-A-D

Space-A-D-A
Space-A-D-A-A
Space-A-D-A-B...C
Space-A-D-B...H
Space-A-D-B...H-ê

Space-A-E

Space-A-E-ê

Space-A-F

Space-A-F-A
Space-A-F-A-A
Space-A-F-A-B
Space-A-F-A-C-0
Space-A-F-A-C
Space-A-F-A-C-Help
Space-A-F-A-C-T
Space-A-F-A-D
Space-A-F-B

Space-A-G

Space-A-G-ê

Space-A-H

Space-A-H-A
Space-A-H-A-A
Space-A-H-A-A-A
Space-A-H-A-A-B
Space-A-H-A-C
Space-A-H-B
Space-A-H-C
Space-A-H-D
Space-A-H-D-A...H
Space-A-H-D-A...H-ê
Space-A-H-F

Space-A-J

Space-A-K

Programs menu (Management menu)

- Activate-program menu
- Activate program
- Activates link
- Activates update
- Activate test program
- Restoring menu
- List of programs
- Delete program

USB software management

- Import file
- Export file
- Import setup
- Export setup
- Import Extra Files
- Export Extra File
- Export file log
- Export file *.art
- Clone machine on USB

General menu**Autotest menu**

- Manual commands menu
- Autotest special functions
- Autotest yarnfinger outputs
- Autotest Cam
- Autotest levers
- Autotest various outputs
- Autotest outputs external closed toe
- Step motors menu
- Autotest MPP
- Autotest VPE
- Autotest sinker cap
- Raising dial motor
- Autotest Stitch cam
- Autotest of inputs
- Autotest of inputs
- Input Autotest external closed toe

Setup menu**Machine setup**

- General data setting
- Diameter setup
- Machine needles setup
- Dedicated devices setup

Space-B

- Space-B-A
- Space-B-A-A
- Space-B-A-B
- Space-B-A-D
- Space-B-A-E
- Space-B-B
- Space-B-C
- Space-B-D

Space-C

- Space-C-A
- Space-C-B
- Space-C-C
- Space-C-D
- Space-C-E
- Space-C-F
- Space-C-G
- Space-C-G-A
- Space-C-I

Space-D**Space-D-A**

- Space-D-A-A
- Space-D-A-A-A
- Space-D-A-A-B
- Space-D-A-A-C
- Space-D-A-A-D
- Space-D-A-A-E
- Space-D-A-A-F
- Space-D-A-B
- Space-D-A-B-A
- Space-D-A-B-B
- Space-D-A-B-C
- Space-D-A-B-D
- Space-D-A-B-E
- Space-D-A-C
- Space-D-A-C-A
- Space-D-A-C-B

Space-D-C**Space-D-C-p1-A**

- Space-D-C-p1-A-A
- Space-D-C-p1-A-A-A
- Space-D-C-p1-A-A-B
- Space-D-C-p1-A-B

Rest setup

Rest enabling setup
Set cylinder-raising motor
Set dial-raising motor
Motorized welt raiser setup
Set saw device motor
Saw blade setup
All-sizes modification enabling setup
Associated-zones modification enabling setup

Typical data collection setup

Machine management setting

Warm up machine
Inputs setup
Setup stop chain [F1]
Solenoid valves shake menu
Lighting management
Manual commands in hazardous areas
Speed and rev limit control
Resetting by hand-cranks
Medium speed [F6] light
Emergency light out of run

Setup elastic motors

Enable motors
Motor sense of rotation
Type of motors mounted
Yarn sensor Pyf Plus
All-sizes modification enabling setup

Outputs autoconfiguration

Motor setup menu

General parameters menu
Motor drive ramps setup
Motor drive speed setup
PID menu setting
PID current setting
PID speed setting
PID position setting
PID speed setting crank
Mechanical zero
Resolver timing

IP adress setup

Space-D-C-p1-A-C

Space-D-C-p1-A-C-A
Space-D-C-p1-A-C-A-B
Space-D-C-p1-A-C-A-E
Space-D-C-p1-A-C-A-E-B
Space-D-C-p1-A-C-A-F
Space-D-C-p1-A-C-A-F-B
Space-D-C-p1-A-C-B
Space-D-C-p1-A-C-C

Space-D-C-p1-A-D

Space-D-C-p1-A-E

Space-D-C-p1-A-E-p1-A
Space-D-C-p1-A-E-p1-B
Space-D-C-p1-A-E-p1-E
Space-D-C-p1-A-E-p2-A
Space-D-C-p1-A-E-p2-B
Space-D-C-p1-A-E-p2-C
Space-D-C-p1-A-E-p2-D
Space-D-C-p1-A-E-p2-E
Space-D-C-p1-A-E-p2-F
Space-D-C-p1-A-E-p2-G

Space-D-C-p1-A-F

Space-D-C-p1-A-F-A
Space-D-C-p1-A-F-B
Space-D-C-p1-A-F-C
Space-D-C-p1-A-F-D
Space-D-C-p1-A-F-E

Space-D-C-p1-B

Space-D-C-p1-C

Space-D-C-p1-C-A
Space-D-C-p1-C-A-A
Space-D-C-p1-C-A-B
Space-D-C-p1-C-A-C
Space-D-C-p1-C-A-C-A
Space-D-C-p1-C-A-C-B
Space-D-C-p1-C-A-C-C
Space-D-C-p1-C-A-C-D
Space-D-C-p1-C-B
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Space-E

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Space-E-C-ê
Space-E-D
Space-E-E
Space-E-E-ê
Space-E-F
Space-E-F-ê

Space-F

Space-F-Z

Space-G

Space-G-A
Space-G-B
Space-G-C
Space-G-D
Space-G-E
Space-G-F
Space-G-G
Space-G-H

Space-I

Space-I-A
Space-I-A-A
Space-I-A-B
Space-I-A-C
Space-I-B
Space-I-B-A...C



Control panel

Models GK

The control panel is comprised of a display, a few buttons and warning lights, and data transmission connectors.



For details see: Next page

Description

Left

a) Emergency Stop Button

When you press this self-retaining button, the machine stops instantly and both the software and hardware are disabled.

When you press this button, the red light comes on and an error indicates that the emergency button has been activated.

The machine can be restarted after the button has been released and the error reset.

b) Green Lamp (machine running) / Red Lamp

Green Lamp (Machine running lamp)

On while the machine is running.

Red Lamp (Emergency light / Machine not-running lamp)

This Red lamp lights up when is pressed the "Emergency" button.

On the other hand ...

The light flashes when ... The machine is at a standstill.

About this see point: e)

If the emergency button is held down, the fixed Red light on has priority.

Remember that:

When the software detects a state failure or malfunction, a specific window will be displayed.

Concerning this see the menu:

Concerning this see the menu:

Error
Alarm

For more information, refer to the manual: **STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL .**

c) Yellow Lamp (Lamp F1)

This Yellow lamp lights up when is active the "Stop Chain" ([F1] key active).

The light flashes when ...

The seaming robot is working (sock not yet ejected).

Or ...

The seaming robot is working (sock not yet ejected), while the machine is at end of cycle due to F3 being pressed.

This condition is further defined in a dedicated menu. See the reference set forth below.

If the yellow and blue lights are flashing alternatively, it means that the Seaming Robot is faulty.

Furthermore ... At each operating status, on display in the dedicated area, is shown the corresponding icon.

Note for the models prepared with: Seaming Robot (CTE)

The light flashes when ...

The seaming robot is working (sock not yet ejected).

Or ...

The seaming robot is working (sock not yet ejected), while the machine is at end of cycle due to F3 being pressed. This condition is further defined in a dedicated menu. See the reference set forth below.

If the yellow and blue lights are flashing alternatively, it means that the Seaming Robot is faulty.

Furthermore ... At each operating status, on display in the dedicated area, is shown the corresponding icon.

For further information see also:

[Linker motor Help](#)

See also the menu:

[External closed toe setup menu](#)

In particular, refer to the paragraph:

[E]

Barrier active warning light

d) Blue light

Concerning this see the menu:

[Main Window](#)

In particular:

[\[F6\] Medium speed.](#)

See also the menu:

[Medium speed \[F6\] light](#)

See also ...

[Single-item-counter setting](#)

e) White Lamp (Machine not-running lamp)

This light comes on when ... The machine is at a standstill.

In the centre

f) "Touch screen" colour display

This is the standard display for visual communication with the user. It is a colour graph.

Furthermore: **The device is tactile, so you can interact with the machine by touching the keys on the screen. A series of virtual keys is displayed, according to the menu / window requirements.**

To this end, please refer to:

[Main Window](#)

g) Button [Home]

Do not currently managed.

Right

h) March button (RUN).

If the display does not indicate any malfunction, when you press this button the machine starts running.

About this see point: b) .

This machine component is also identified with the name: Machine start button.



Furthermore ... When this key is held down ...

This function allows the machine to run at the minimum speed.

According to the Machine model, this speed varies from 150 Rpm to 300 Rpm.

For further information see also:

[Motor drive speed setup](#)

i) Machine Stop Button

When you press this button, the machine stops.

About this see point: e) .



Furthermore ... When this key is held down ...

The command gives direct access to the menu:

[Welt raier and dial manuals](#)

Further information about this are available in the item indicated.

For safety reasons, in some sock zones, the buttons to move the mechanical units can be inhibited.

j) Electric crank

This command is used to: Rotate the cylinder.

The movement can be performed in two modes.



Degree/ Degree

Each time the key is pressed, the cylinder moves about 2 degrees.

Continuous

If you hold this key down, the cylinder will start rotate at a preset speed of 20 rpm.

For further information see also:

In particular, refer to the paragraph:

[Main Window](#)
[Commands available](#)

Crank mode

How to switch the operating mode

Refer to the menu:

See also the menu:

[Quick menu](#)
[Mechanical zero](#)

k) Program Transmission Connector (USB)

It is a standard USB plug.

A standard USB-type memory device, e.g. a FLASH USB, can be connected.

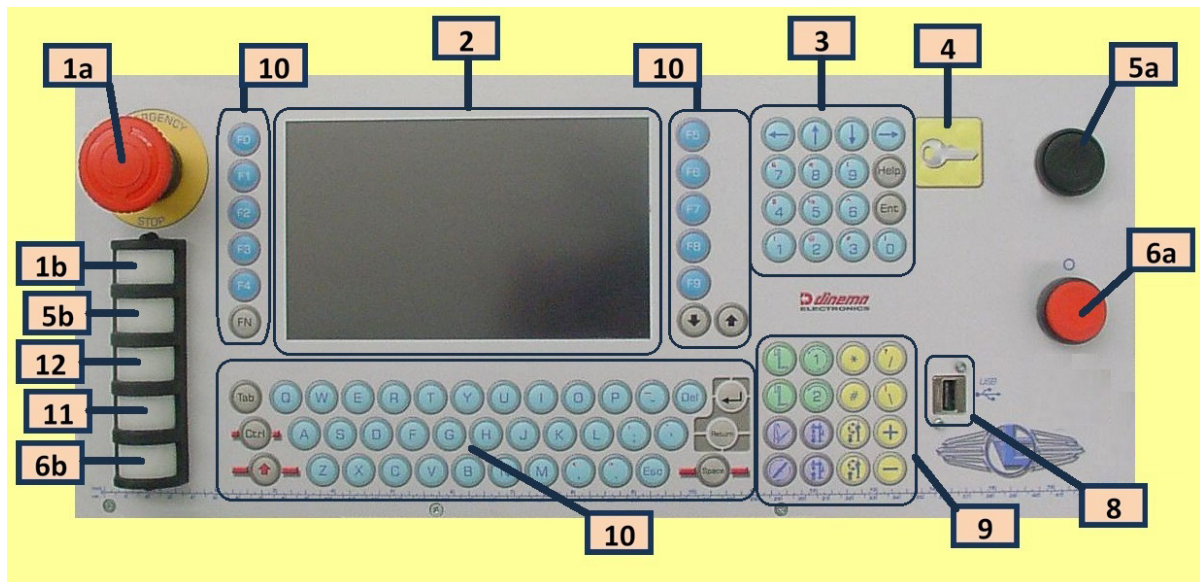
This USB device can be used to enter or extract various files compatible with the machine (e.g. knitting programs and software files).

The menu can only be accessed after inserting the USB device.

If the USB flash drive is inserted, the icon lights up.

Models GL

The control panel is comprised of a keypad, a display, a few buttons and warning lights, and data transmission connectors.



The picture shows the control panel with each component numbered. The meanings of all the component are given below.

Description

1.a) Emergency Stop Button

When you press this self-retaining button, the machine stops instantly and both the software and hardware are disabled.

When you press this button, the red light comes on and an error indicates that the emergency button has been activated.

The machine can be restarted after the button has been released and the error reset.

1.b) Red Lamp

This Red lamp lights up when is pressed the "Emergency" button.

On the other hand ...

In the event of a malfunction the software stops the machine.

In this case ... **The Red lamp will blink.**

If the emergency button is held down, the fixed Red light on has priority.

Remember that:

When the software detects a state failure or malfunction, a specific window will be displayed.

Concerning this see the menu:

Concerning this see the menu:

Error
Alarm

2) "Touch screen" colour display

This is the standard display for visual communication with the user. It is a colour graph.

Furthermore: **The device is tactile, so you can interact with the machine by touching the keys on the screen.**

A series of virtual keys is displayed, according to the menu / window requirements.

To this end, please refer to: Conventional signs, also used in the menus

3) Keypad: Numeric Keypad + Arrow Keys + Special Keys

In this sector are available [Numeric keys], [Small Arrows], [Ent] and [Help] keys.

[Ent] = Access to the virtual keyboard.

[Help] = For easier consultation, there are symbols that help the user make a quicker reading.

4) Enter password

Access to the window ... Password level

5.a) March button

If the display does not indicate any malfunction, when you press this button the machine starts running.

About this see point: 1.b .

This machine component is also identified with the name: Machine start button.

5.b) Green Lamp

This light comes on when ... The machine runs.

This indicator light is identified with the wording: Machine running lamp

6.a) Machine Stop Button

When you press this button, the machine stops.

6.b) White Lamp

This light comes on when ... The machine is at a standstill.

This indicator light is identified with the wording: Machine not-running lamp

ex 7) Network connection / Ethernet board

Via a board, the machine can be connected in a telematic network and controlled by a remote master computer.
For details of the Dinema NAUTILUS network, contact Dinema S.p.A.

8) Program Transmission Connector (USB)

This is an optional connector. It is a standard USB plug.

A standard USB-type memory device, e.g. a FLASH USB, can be connected.

This USB device can be used to enter or extract various files compatible with the machine (e.g. knitting programs and software files).

9) Operating commands

See in this regard as reported under the item:
The subsection comes under section:

Commands available
[Main Window](#)

10) Main keyboard

Main part of the keyboard.

11) Blue light

(Lamp outcounter)

This Blue lamp lights up when is active the limitation at the "Medium Speed" ([F6] key active).

This blue light flashes during normal production when the number of items set as OUT COUNTER has been reached and option B or C is used.

Further informations are available in the item: Yellow Lamp

Concerning this see the menu:

In particular:

See also the menu:

See also ...

Main Window

[F6] Medium speed.

Medium speed [F6] light

Single-item-counter setting

12) Yellow Lamp

This Yellow lamp lights up when is active the "Stop Chain" ([F1] key active).

The light flashes when ...

The seaming robot is working (sock not yet ejected).

Or ...

The seaming robot is working (sock not yet ejected) while the machine has stopped at end of cycle due to F3 being pressed.

This condition is further defined in a dedicated menu. See the reference set forth below.

If the yellow and blue lights are flashing alternatively, it means that the Seaming Robot is faulty.

Furthermore ... At each operating status, on display in the dedicated area, is shown the corresponding icon.

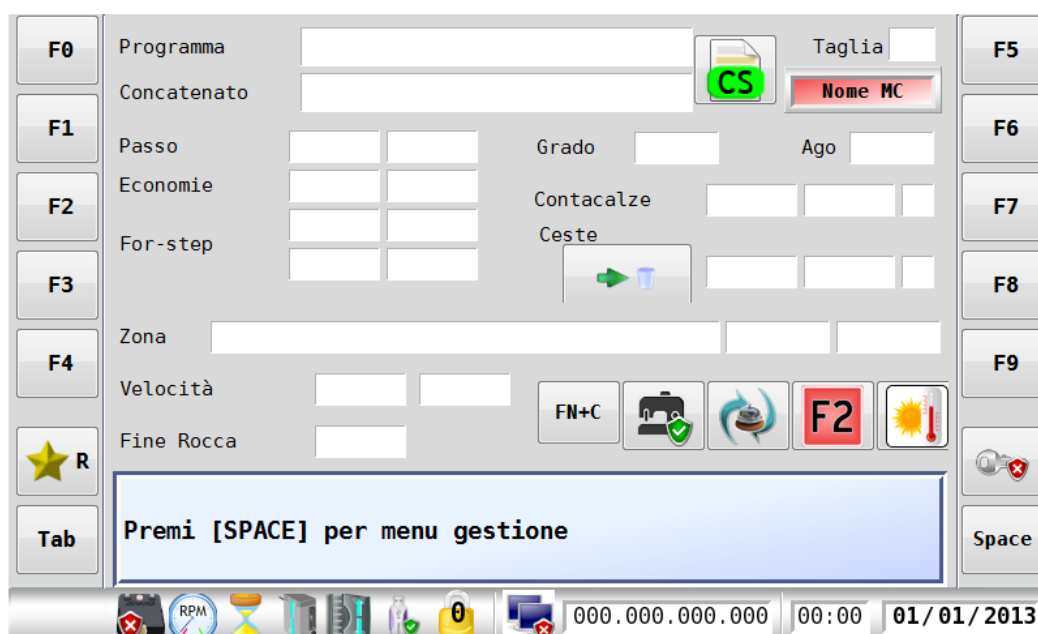
For the icons, refer to the menu ...

For further information see also:

Linker motor Help

External closed toe setup menu

Main Window



When switching on the machine after the initialisation stage (a few seconds), the main window is displayed.

This window gives access to all the machine menus.

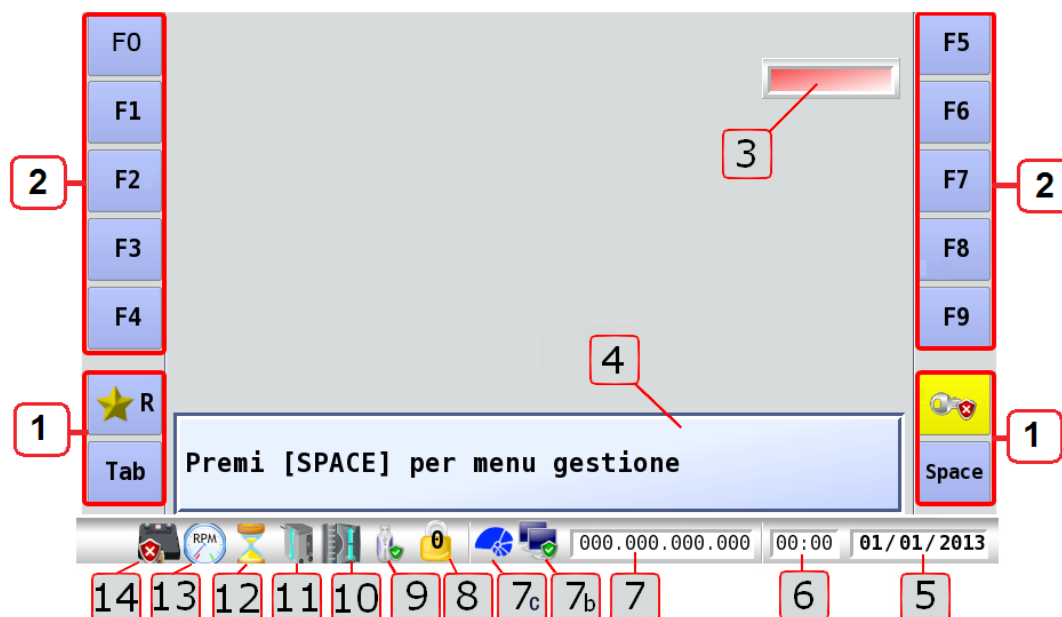
The description and meaning of the various fields of the window are displayed below.

At each operating status, on display in the dedicated area, is shown the corresponding icon.

See also the menu:

[Help](#)

Description



1) Access to the menu

Touching the desired icon gives access to the corresponding menu.

In particular, refer to the paragraph:

Navigating

Note for GL models

The command is also available from keyboard.

Note for CTE models

Go to point ... 27 .

2) Function keys

This line displays the function key status from [F0] to [F9].

Active management is ticked.

If an item has grey only the button, it means that it cannot be activated or it is inaccessible , in that moment.

To this end, please refer to:

Commands available

3) Machine model

This field shows the type (model) of machine.

4) Space for Warning messages

This field displays the various (important) warning messages that are displayed by the software during machine operation.

The Warnings appear in the low part of the Display (the last 2 lines below) and inform the user regarding the machine status.

The most common type of warning are:

Warnings relating to an operation (start, in progress, end) or to its failure.

Warnings relating to a manual operation of the user.

Warnings relating to an automatic operation of the machine.

The characteristics of the Warning is that it doesn't obstruct the machine movement with the various start Button.

It's an alert for the user regarding the machine or operation status, that even if defected does not obstruct the functioning.

The Warning is erasable with the key: **[F8]**

If the Warning does not cancelled or it reappears means that the defected status is still present.

There are however conditions for wich the appearance of a Warning blocks for example the possibility of the use of the Start Button.

For notices of a particular importance, a dedicated window is displayed.

Concerning this see the menu:

Information

For more information, refer to the manual:

STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL .

More in particular: **Main window**



5, 6) Date and time

The machines are equipped with an internal clock. The clock must always be set since it is used by the software for controlling other devices or menus.

Concerning this see the menu: Set date and time

7) Machine network address

Via a board, the machine can be connected in a telematic network and controlled by a remote master computer.

Concerning this see the menu: **IP adress setup**

7b) Network connection

This icon indicates that: Network active by wiring

For details of the Dinema NAUTILUS network, contact Dinema S.p.A.



7c) Type of data collection

First refer to what specified for the previous entry.

This section refers to the telematic network.

The network and its management is supplied by Dinema S.p.A.

The specific icon appears according to the type selected.

Refer to the menu:

[Typical data collection setup](#)

See also the menu:



[Help](#)

8) Operability level (password)

The number in this box indicates: the access level.
The access level is determined by the password.
Anyone with level 100 can access all the windows.

See also the paragraph:

[Navigating](#)



9) USB device detected

USB software management

If the USB flash drive (data storage) is inserted, the icon lights up.

The menu can only be accessed after inserting the USB device.

From this menu is then possible to access to all the different windows for the USB files management (cancellation, reading, saving files on USB).



10) Drums warming movement

This icon indicates the next machine operating status.

Drums warming movement

The procedure is launched whenever the machine has not been in operation for some time.

This time is currently 6 hours.

This procedure is fully automatic (there is no configuration menu or operating command).

The start command can be enabled in the meanwhile, but work will start only at the end of the procedure.

The procedure is repeated very briefly every a certain number of socks.

See also the menu:



[Autotest levers](#)

11) Solenoid valves shake active

This procedure consists of a sequence of commands controlling the movement of the various machine solenoid valves.

Automatic activation depends on how long the machine has been turned off.

The Setup can be used to set Enabling of the procedure, the machine shutdown time to activate the procedure and the number of cycles for which the sequence will be repeated.

Concerning this see the menu:

[Solenoid valves shake menu](#)

For further information see also:

[Work menu](#)



12) Conversion in progress

These icons show that:

Machine processing is in progress following changes made to the current article.



WAIT. Machine in state of data processing

This icon indicates that:

You need to wait a few seconds.

Production is resumed when the saving (of the change made at step Zero) is completed.



Conversion program in progress

This icon indicates that:

The modification just done is in saving phase.

The modification made becomes operational at the next Zero Step pass.

13) Automatic speed reduction active

(Speed limitation for temperature)

Due to thermal dilation, it is advisable to run the machine at a reduced speed when it has just been switched on, i.e. cold.

In this warm-up stage, the speed is limited to 50% of that set by Graphitron.

For further information see also:

[Warm up machine](#)



14) Yarn Sliding status

The "Yarn Feeding" system verifies correct return of the yarn.
The unit is comprised of a certain number of sensors that detect correct yarn feeding.
In practice the sensor provides the software a signal that corresponds to the yarn status, i.e. if it is stationary, or is in motion.



This area displays information on the system status.

- For further information see also:
- See also the menu:

[Yarns sliding menu](#)
[Quick menu](#)

14.1. a - Yarn sliding: learning

This icon indicates that:
The control software initially needs to record the yarn behaviour when manufacturing a sample article.



14.1. b - Yarn sliding: learning suspended

This icon indicates that:
A fault has occurred during this step which prevents completion of the process. **The machine will repeat the incomplete step during the next cycle.**
The cycle fault can also be caused by the operator.
About this see point: 14.5 .



14.2. a - Yarn sliding: learning and controlling

Learning comprises a variable number of sock cycles. This number depends on the working conditions of each sensor (yarns used, type of article, environmental conditions, etc.).
In the next sock enters the "Control" phase, it confronts the data read during the new sampling with the one previously memorized in the table; if the confrontation finds differences it means that that certain yarn is now acting differently.



14.2. b - Learning yarn sliding interrupted with control active

This icon indicates that:
The control logic is active.
Go to point ... 14.1. b .



14.3 - Sliding wires in control

This icon indicates that:
The control logic is active.
The values read during production are compared with those of the correct cycle (sample article).
After a certain number of malfunctions the machine stops and displays the type of error and yarn underlying the sample cycle.



14.4 -

Learning force



(In suspension up to next cycle.)

This icon indicates that:

Via this command, the machine is requested to execute a new learning at the next sock cycle.

About this see point: Yarn sliding: learning

This function is used, for example, if you want suspend the control of the actual sock, and you considers that the Learning is no valid, and then you should perform a new Learning for the next sock, not testing the sock current.

See in this regard as reported under the item: Learning force

14.5 -

Yarn sliding: control suspended



(In suspension up to next cycle.)

This icon indicates that:

If, during the Sock Cycle are pressed some keys that involved on the same Sock Cycle, for example the [F2] key, the current yarn sliding stage is interrupted (suspended).

This function determines the suspension of the phase of Learning/Control yarn sliding may be taking on size active.

The next sock the Yarn Sliding system back in the Status above the Suspension.

See in this regard as reported under the item: Control suspension

14.6 -

Temporarily disable



(Yarn control is suspended)

This icon indicates that:

The Yarn Sliding control system has been interrupted by the user. It can be enabled via the same command.

The system remains disabled until a new turning on of the machine, which determines the automatic rehabilitation of the System, which is in the status above the "Disabling" (Learning or Control).

See in this regard as reported under the item: Temporarily disable

14.7 -

Yarn control is disabled



(Yarns sliding setup **Disabled**)

This icon indicates that:

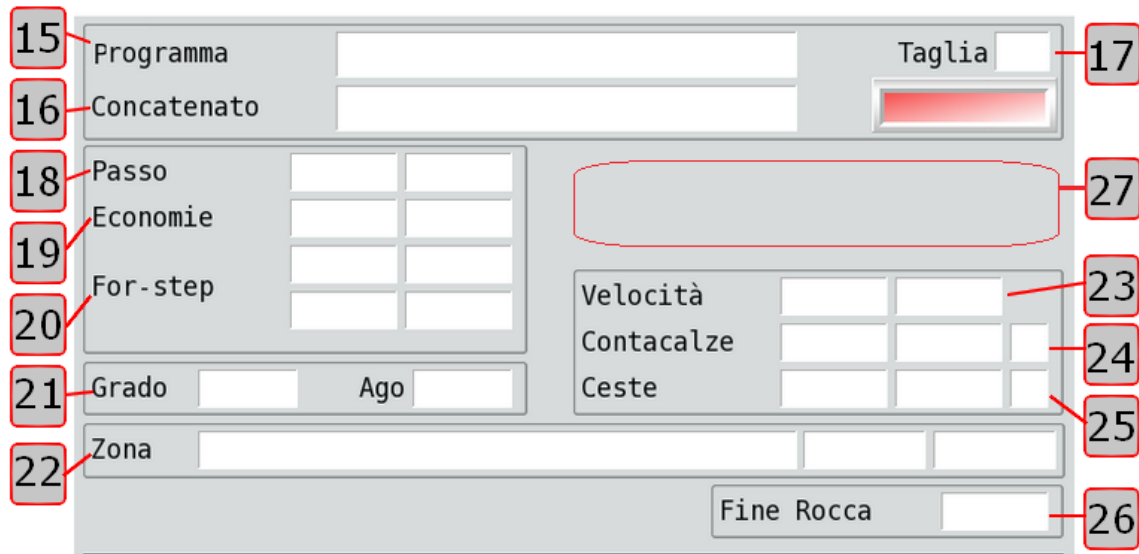
The Yarn Sliding control system is not enabled. The relevant commands are NOT available.

The disabled system is excluded from the machine data analysis.

As a result no control shall verify the "Yarn sliding" status (uncut or broken).

See in this regard as reported under the item: Enable yarns sliding control

More in particular: **Main window**



15) Active Program

Current Program Name

Chain, chain program, article, sock or coded program are synonymous.

Refer to the menu:

[Activate program](#)

Test Programme (*.CS)

When this type of file is activated, a specific icon appears.



Program file.CS disable [Fn+F3]

When this command is pressed, a confirmation icon appears.

The command deactivates the .cs file at end of cycle, and resumes the previously processed sock programme (.co file).

When this is completed, the icon disappears.

See also the menu:



[Quick menu](#)

16) Active link-program

Name of the active machine Link Programs.

Link Programs is a set of different items produced in sequence.

Refer to the menu:

[Activates link](#)

17) Current size

The value is the Size selected for the current program.

18) Chain step active

The first value refers to the current chain step, the second the end-of-cycle chain step (the one at which the knitting cycle ends).

19) Economizations

Economizations are equivalent to the number of repeats of a set step.

The first value refers to the number of Economizations performed, the second the programmed number of Economizations, i.e. the total number to be performed.

20) For Step

This data indicates that at this stage of the the sock cycle is active a "steps sequence" determined by the programming of the "For step" function.

The "For step" programming is the repetition for "n" times of a "Steps chain" sequence.

In the first data field is shown the sequence of "repeated steps" ("Step start" and "Step end").

In the second data field is shown: the number of repetitions of the sequence until now carried out in the sock cycle; the total number of sequences to run.

21) Degree , Needle

Current degree

The value refers to the current cylinder degree of revolution.
Reference to this Degree is always the mechanical zero.
Degree 0 corresponds to actual mechanical zero.

Current needle

The value shows the Needle associated to the current machine cylinder revolution.
Needle calculated acc. to number of cylinder needles.
This Needle always refers to the mechanical zero.

22) Knit zone active

These 3 fields list the following in order.

- This field shows the name of the current knit area. This area's name is the same as the name entered during Graphitron programming.
- Step start zone
- Step end zone

23) Cylinder speed

Left : The first value shows the actual machine speed.

Right : The second value shows the speed set in the current step.

24) General sock-counter

Current status of general Sock-counter These 3 fields list the following in order.

- Valid items produced up until that time.
- Total items to produce.
- Type of active output counter control (A - B - C).

Concerning this see the menu:

[General piece-counter menu](#)

25) Baskets sock-counter

Current status of basket Sock-counter. These 3 fields list the following in order.

- Valid items produced up until that time.
- Total items to produce.
- Type of active output counter control (A - B - C).

Furthermore ... The function status is displayed.
The information is provided through icons.

Concerning this see the menu:

See also ...

In particular, refer to item:

[Baskets piece-counter menu](#)

[Single-item-counter setting](#)

Bag-ready control with A-B options

Logic basket disabled

This icon indicates that: The management is disabled.



With management enabled:

Basket not available

This icon indicates that: The bag in second position has not been emptied.
If bag-emptying completion is not confirmed, the machine does not start filling the bag in second position.



Basket available

This icon indicates that: The bag on hold has been emptied.
Namely ...

The user has informed the machine (via a dedicated command) that the bag filled previously has been emptied.

Therefore: Bag changeover occurs when the current bag has reached the set amount.

The dedicated command is: [.] .

Concerning this see the menu:



[Quick menu](#)

26) TARGET FOR YARN CONE END

The value, if different than zero, indicates the programmed activation of the "End of cycle" function ([F3]) after "x" sock cycles.

The value shown is this "number of sock cycles".

The use of this function allows the user to program the stop of the machine according to the quantity of yarn remained on the yarn reels.

For further information see also:

[Bobbin end](#)

27) Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

The robot and machine are independent. They operate in synchronisation during sock extraction.

The device performs the operation via a set series of movements in succession.

The sequence can be continuous or by stages.

Namely ... The sequence can be performed either automatically or manually.



At each operating status, on display in the dedicated area, is shown the corresponding icon.

For basic information, refer to:

[Linker Motor](#)
[General setup external closed toe](#)
[Linker motor Help](#)

See also ...

Note

The information provided applies to the following models: F , H .

This type is also called:

External Closed Toe. (CTE) , Or ...

Stitch-by-stitch models. (S by S)

27. a - Access to the window ... [Linker Motor](#)

Touching the icon gives access to a dedicated menu.

In particular, refer to the paragraph:

[Navigating](#)

27. b - State of the Robot

The icons indicate the status of the device and the related operations/ managements.

Management disabled

This icon indicates that: The device has been disabled by the user.

The disabled device is not handled even when it is connected.

The disabled device is excluded from the analysis of the information sent to the machine.



Normal operation

This icon indicates that: The device is operating normally.

The control logic is active. Furthermore ...

The symbol confirms that the following operating mode is on: Automatic



Normal operation during a reset

The operator has launched the following procedure: Sewing device resetting

This icon indicates that: The device is operating normally.

The icon stays on unless any errors occur. Or ... The icon stays on unless the operating mode is changed.



Error



This icon indicates that: The device is stopped due to a malfunction.

If there is a Sewing Machine error, to verify the type and for possibly clear it the user must enter the window.

Is the device defect causes malfunctioning of the machine, the display first shows the latter malfunction.

Error generated during a reset



This icon indicates that: The device is stopped due to a malfunction.

The failure occurred during resetting.

If there is a Sewing Machine error, to verify the type and for possibly clear it the user must enter the window.

Is the device defect causes malfunctioning of the machine, the display first shows the latter malfunction.

Current phase



The symbol confirms that the following operating mode is on: Phase stop

This icon indicates that: The device is performing a step of the procedure.

(Sewing device MOVING)

Phase in progress during a reset



The operator has launched the following procedure: Sewing device resetting

This icon indicates that: The device is performing a step of the procedure.

(Sewing device MOVING)

Furthermore ... The symbol confirms that the following operating mode is on: Phase stop

Current phases



The symbol confirms that the following operating mode is on: Phase stop

The machine awaits the specific command to move the device forward.

Stops by phase during a reset



The operator has launched the following procedure: Sewing device resetting

The machine awaits the specific command to move the device forward.

The symbol confirms that the following operating mode is on: Phase stop

27. c - Calibrations

Some Robot positions need to be set (adjusted). Namely ... There are stations that require certain mechanical settings to continue without errors.

To verify or change any setting, you only need to reserve it.

The icons displayed provide information on this subject.

Disable calibrations

The device has been disabled by the user. (Sewing machine disabled from setup.)



No calibration reserved

This icon indicates that: No selection made.

Refer to the menu:

[Linker Motor](#)

No item selected. (Neither A, nor B)



Reserve the first possible calibration

This icon indicates that: Item B has been selected.

This command allows to stop the Robot at all stations.

[Stations (or phases) to be finely adjusted]



Reserve one or more calibrations

This icon indicates that: More than one item has been selected in menu A.

In this menu you can choose the positions at which the robot must stop.

The robot stops as it encounters one of the reserved stations.



Reserve one or more calibrations

First refer to what specified for the previous entry.

This icon indicates that: Only one calibration has been selected.



Calibration in cours

Some Robot positions need to be set (adjusted).

This icon indicates that: The Robot has reached a position to be adjusted.

This icon is intermittent. It alternates with the existing one.



27. d - Delete special economizers

To this end, please refer to:

[Quick menu](#)

This function can always be enabled.

This function is used to produce the item by eliminating all the economizations present in the knit cycle.

Economisation is the number of times a chain step is repeated.

Unlike the command F2, this function is used to seam the sock.

The item is considered a reject by both the Robot and the Machine reject counters.

On the other hand ...

Cases where the item is considered reject only by the Machine reject counter.

- In the event of a failure type: Alarm
- When you press the key: F0, F1, F2, [Plate Raiser] .
- When you press the key: [Dial Raiser] ; . In this case only if the cylinder has been moved.

Delete special economizers

This icon indicates that: The function has been activated.



27. e - Sewing warm up

Due to thermal dilation, it is advisable to run the machine at a reduced speed when it has just been switched on, i.e. cold.

To this end, please refer to:

[General setup external closed toe](#)

Sewing warm up disable

This icon indicates that: The function has been disabled.

Therefore: The Robot works at full speed, even after a period of inactivity.



Sewing warm up finished

This icon indicates that: The function is enabled.

The Robot has sewn the specified number of items, and now works at a programmed speed.



Sewing warm up in progress

This icon indicates that: The function is enabled.

The Robot has been disabled and has not yet completed the work period at reduced speed.



Navigating

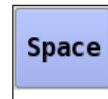
Keys that lead to sub-menu
Touching the desired icon gives access to the corresponding menu.
For further details, refer to the same item in the handbook.

Management menu

The section contains most of the machine menus, in short it is the main branch of the menu architecture.

From this window, from menus to submenus, you can reach the desired window.

Other windows can be reached directly from the main window also via a specific command. See the following command.



Quick menu

This window lists the shortcut controls and buttons.

These commands are usable.

Shortcut keys = Keys for direct access to a menu (without having to following the entire path).



Enter password

This command gives access to the menu: **Password level**

This menu allows the following operations: Enter the password.

This key is used to enter edit-protected windows.

For further information, refer to the brochure: **Password management**



Solenoid valve commands

This command gives access to the menu: **Manual EV**

This key gives access to a window in which are displayed some keys: their pressure determines the enabling of some specific commands.

For further details, refer to the same item in the handbook.

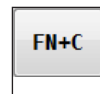


Linker Motor

This section contains the menus associated with the device: **Seaming Robot**

The device picks up the item from the cylinder and transfers it to seaming.

The device performs the operation via a set series of movements in succession.



Note for GL models

The command is also available from keyboard.

Commands available

This section lists all the keys enabled in the main window, together with their meaning.

For further information see also:

See also the menu:

[Quick menu](#)

[Manual EV](#)

MESSAGES

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display.

For the error to be reset, it is necessary to remove its cause, otherwise it persists.



Working

[F0] Program reset, mechanical reset. (Machine reset.)

This key is used to reset the program (i.e. move the machine to the end-of-cycle position).

This reset can be activated at any point of the knit cycle.

The following message is displayed when [F0] is pressed.

MACHINE SET-OVER ACCEPTED Even using start button.

In the contemporary Yarnfingers will be exit by the work status and Cams will return in the zero position.

Eventually clean the cylinder and the connected components by residues of yarn.

Use the [Handle] or [Start] buttons to rotate the cylinder.

The machine will perform all the resets, after which it will start the next sock cycle, unless keys F1 or F3 are active.



For further information see also:

See also ...

In particular, refer to item:

[Resetting by hand-cranks](#)

[Machine management setting](#)

Stop always the machine at zeroing end

[F1] Chain step stop.



This function activates in all knit blocks, except those in which it is specifically excluded during programming.

These blocks, for example, are Heel and Toe.

If you press [F1] at any step of the block, Chain Stop activates automatically in the first free Step of that block and the cylinder continues to rotate without changing step.

Press this key again to deactivate this function.

First Free Step means the first step of the block where no functions such as Yarnfingers or Bolt Cams are programmed.

See also the menu:

[Setup stop chain \[F1\]](#)

[F2] Mini cycle (No economizations)



This function is used to produce the item by eliminating all the economizations present in the knit cycle.

If you press the key inside certain blocks, this will not automatically activate the End of Cycle.

The cycle is interrupted up until the end of the block and will be enabled only later.

These blocks, for example, are Heel and Toe.

At the end of cycle, button [F2] is automatically disabled and the machine will resume production

The latter behaviour depends on the Setup.

Concerning this see the menu:

In particular, refer to item:

[Machine management setting](#)

Cancel [F2] upon cycle end

See also the menu:

In particular, refer to item:

[Quick menu](#)

Delete special economizers

[F3] Machine stop at end of cycle

This function stops the machine at the end of the current knitting cycle.
Press this key again to deactivate this function.
At "End of cycle" the machine will stop with the [F3] key active.
The latter behaviour depends on the Setup.



Concerning this see the menu:
In particular, refer to item:

Machine management setting
Cancel [F3] upon cycle end

[F4] Machine stop at start of block.

This function stops the machine at the start of the block next to the one active when it has been pressed.
This function recognises the step of "Start block" (Step to stop) if in the block is programmed the function "8" (GRAPHITRON).
Press this key again to deactivate this function.



Concerning this see the menu:
In particular, refer to item:

Machine management setting
Cancel [F4] upon cycle end

Speed

[F6] Medium speed.

This function controls machine operation at the medium speed.
According to the Machine model, this speed varies from 350 Rpm to 600 Rpm.
Press this key again to deactivate this function.



Furthers informations are available in the chapter:
Please refer to point:

Control panel
d) Blue light

Note for GL models

Furthers informations are available in the chapter:
Please refer to point:

Control panel
11) Blue light

[F5] Low speed

First refer to what specified for the previous entry.
Low Speed corresponds to 50% of the Medium Speed.
According to the Machine model, this speed varies from 150 Rpm to 300 Rpm.
Press this key again to deactivate this function.



Crank mode

[Handle 1]

Machine movement at Handle 1 speed (step).

Each time the key is pressed, the cylinder moves about 2 degrees.

The extent (degrees) and speed of this movement are determined by the data set during Setup for Heel Parameters (motor).

The DEFAULT values are the best ones for correct operation. Any modifications must be agreed with Lonati engineers.



[Handle 2]

Machine movement at Handle 2 speed (continuous).

If you hold this key down, the cylinder will start rotate at a preset speed of 20 rpm.

The cylinder stops when the key is released.

The speed of 20 rmp is set under Machine Setup. The value can be changed within the range 5-40 rpm.

The DEFAULT value (20 rpm) is the best one for correct operation.



Note for GK models

Refer to the menu:

See in this regard as reported under the item:

Quick menu
Crank mode

Air Blowers

[F7] Needle opener 2

The command activates a blow to raise the needle latch.
The blow is positioned at the point at which the needle raises.
If you release the key, the function deactivates.



[F9] Sock ejection

This key activates an additional blow to help the sock come out of the suction hood.
This function is generally used when there are problems of "Stitch Release", or of "Sock Expulsion" failure.



[Needle Opener]

The command activates a blow to raise the needle latch.
The blow is positioned at the point at which the needle raises.
The device is positioned in another point compared to the previous one.
The command is always available.
If you release the key, the function deactivates.



Note for GK models

The related commands are available only after opening the window:
See in this regard as reported under the item:

[Quick menu](#)
Needle opener 1

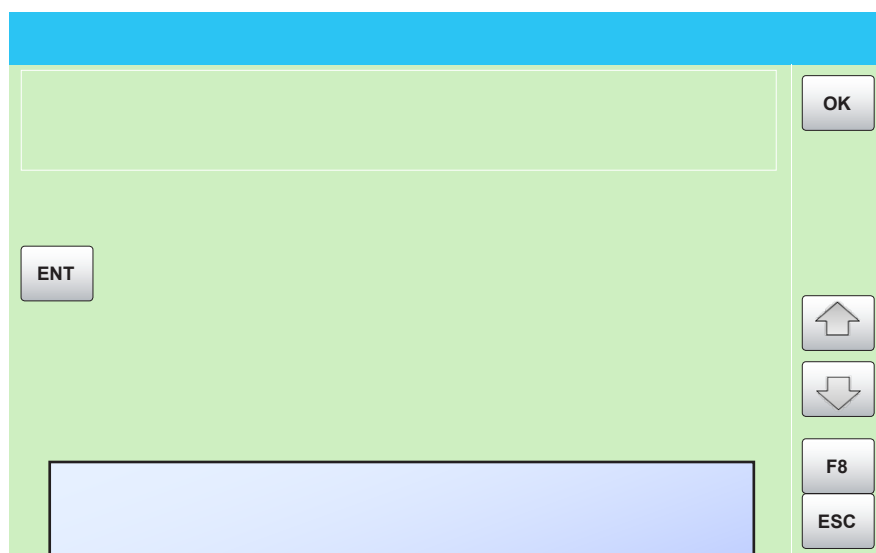


The menus

Commonly used keys

Some keys are common to nearly all the windows and are used for normal display and programming operations.

A list of keys and their meaning is provided below.



OK

Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)
Wait until completion of saving in the Flash memory.

Note for GL models

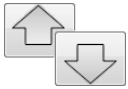
The command is also available from keyboard.

Press the key: [Return]

F8

Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.



This menu covers several pages.

The page sequence is cyclical.
Displays the previous page. / Display the next page.



Enter the new value / Select the device.

Access to the virtual keyboard. Therefore: Directly insert the value through the numbers.
Confirm with [OK]. Press [ESC] to exit .
See the following page.

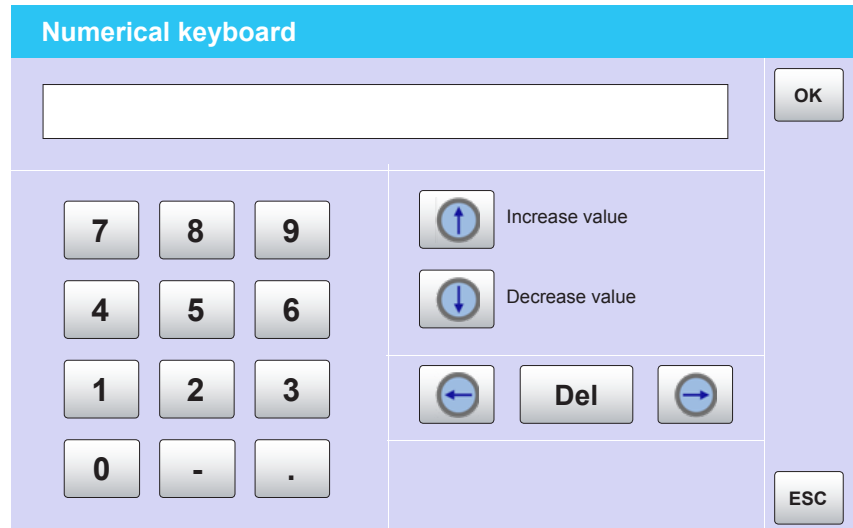


Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Numeric Keypad (Virtual keyboard)

New



This menu can be used to modify the parameter.

Access to this window is via the menus named:

Menu for Parameters setting

Concerning this see the menu:

[Menu for Parameters setting](#)

There is only a field where to record the modification.

When you enter the window the current parameter value is shown.

Operating commands

Below are the commands of the window labelled: **Virtual keyboard**

[0] ... [9] Numeric Keypad

Directly insert the value through the numbers.

[Del] Cancellation of the selected Data.

Erases the characters from right to left in the field selected.

[↑] / [↓] Modify the datum ([Small Arrows Up/Down])

The control increments the parameter. / The command decrements the parameter.



Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

Note for GL models

The command is also available from keyboard.

Press the key: [Return]



Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

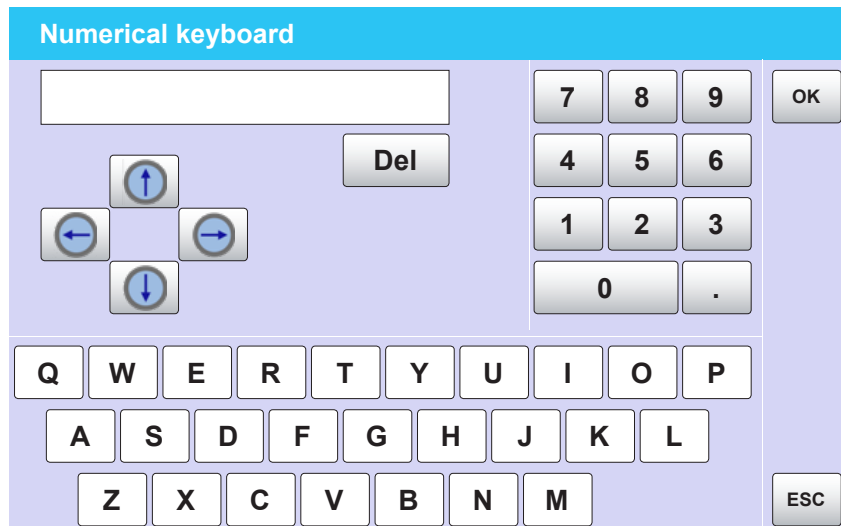
Notice

Indeed ...

The window may (slightly) vary according to the source menu requirements.

Reference

In previous versions ...



Settings

The screenshot shows a software settings window with a light blue header and a light green main area. At the top left, it says 'Models equipped with:'. Below this, there's a section titled 'Device' containing two options: 'A Type 1' and 'B Type 2', each with a small square icon. Below the 'Device' section is a checkbox labeled 'C Enable/ disable the item'. At the bottom left is an 'ENT' button. In the center, it says 'For the parameter :', followed by a text box containing '0,00' and the word 'parameter' below it. At the bottom center is a large blue box with the text 'No active message'. On the right side, there are three buttons: 'OK' at the top, 'F8' in the middle, and 'ESC' at the bottom.

The machine software has standard settings that must be personalised according to the model, equipment and work habits.

The configuration menu consists of one or more types of setting.

Therefore:

Through the menu is possible to ...

- Select the actual equipment or a behaviour.
- Enable either a function or a device.
- Change the allowed parameters.

For further information see also:

[Setup menu](#)

Save the datum.

In the event of window modification, you must launch the command:

SAVE DATA

To this end, please see paragraph:

[Operating commands](#)

Menu for selection

Through the menu is possible to ...

- Select the actual equipment or a behaviour.

Via the relevant command select the desired setting.

The other options are automatically excluded.

The feedback flag is inside the key icon.

The key flag = square/ circle next to the number or letter



With management enabled: Active management is ticked.

Example

Concerning this see the menu:

See also the menu:

[Diameter setup](#)
[Fan contactor setup](#)

Enabling/ Disabling menu

Through the menu is possible to ...

- Enable either a function or a device.

Via the relevant command select the desired setting.

Press this button to change the operating mode.

The feedback flag is outside the key icon.

The key flag = square/ circle next to the number or letter



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Example

Concerning this see the menu:

See also the menu:

[Machine management setting](#)
[Rest enabling setup](#)

Menu for Parameters setting



Through the menu is possible to ...

- Change the allowed parameters.

When you enter the window the current parameter value is shown.

Next to the field there's a key.

This command is used to: Go to the menu for modifying.

In practice:

Access to the window ... [Numerical keyboard](#)

Special cases

Sometimes, the value increase/decrease controls are next to the field.

The dedicated command is:

[Large Arrows Up/Down] .

Or ...

[+] / [-] .

Example

Concerning this see the menu:

[Set cylinder-raising motor](#)

See also the menu:

[Position adjustment](#)

Operating commands



Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

Note for GL models

The command is also available from keyboard.

Press the key: [Return]

Note : OK key ... Not present ?

In this case ...

Press [Esc] to exit until the window with the data storage button appears.

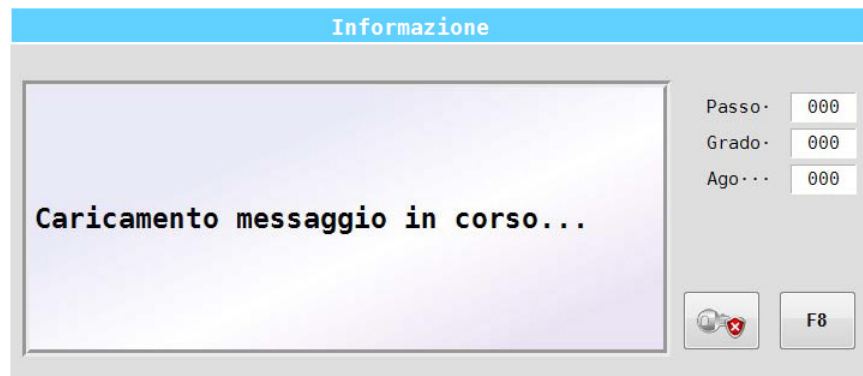
(menu with OK button).

Therefore:

Press the button: [OK]

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

Before exiting a menu containing save control key, you are prompted to confirm.



The menu opens automatically:

.... ► **Information**

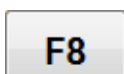
Infos are displayed on the screen and provide information of the machine status or current operation.

This type of message has its own window, which ensure better visibility.

In computer science, these types of boxes are called "pop-ups".

To quit the window, touch the following icon: [F8]

Navigating



Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display.



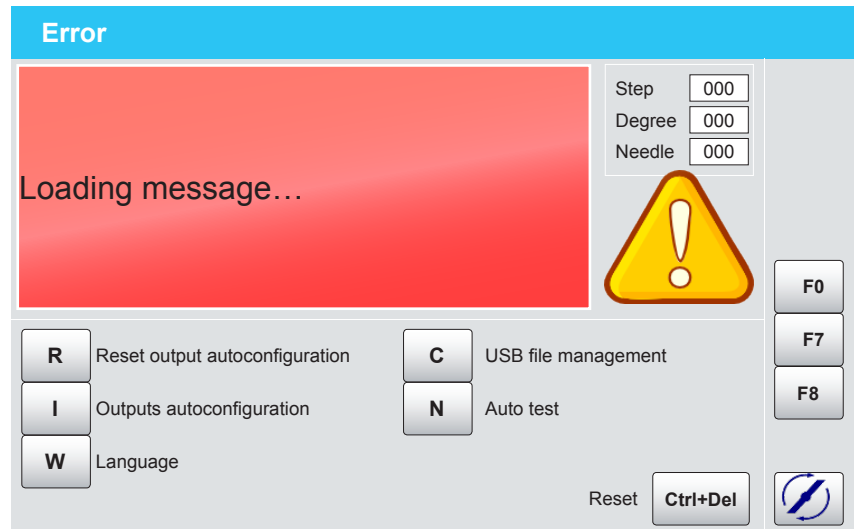
Eliminates any error/warning messages displayed.

This command gives access to the menu: **Password level**

This menu allows the following operations: Enter the password.

This key is used to enter edit-protected windows.

For further information, refer to the brochure: **Password management**



The menu opens automatically:

.... ► **Error**

When the software detects a state failure or malfunction, a specific window will be displayed.

If, after resuming operation, the failure does not cause the machine to switch off, then . . .

In this case the message is called "Error".

The error/alarm name in big characters and the step and degree (needle) at which the machine stopped in small characters are shown in the window.

To resume operation, you need to eliminate the cause of the error and press [F8] to reset. The error window will then close.

Some specific keys are enabled in the error window. A list of keys and their meaning is provided below.

**[F0] Program reset, mechanical reset.
(Machine reset.)**

This key is used to reset the program (i.e. move the machine to the end-of-cycle position).
This reset can be activated at any point of the knit cycle.

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.



+ [Fn]

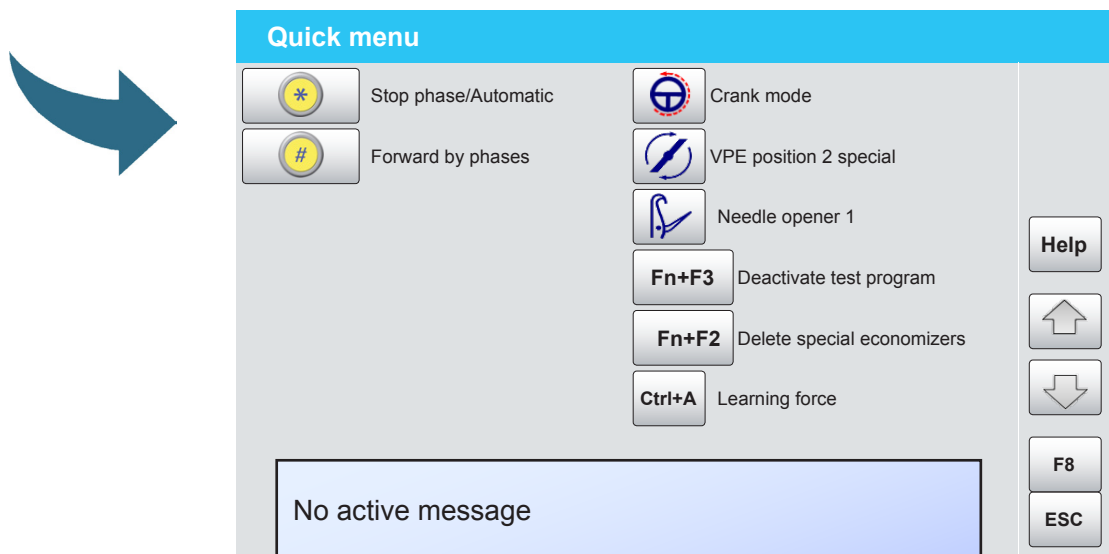
Holding down these keys determines the movement of the "Dial" to the top.



+ [Fn]

Holding down these keys determines the movement of the "Dial" to the bottom.
Holding the command down, the device returns to the home position.

Main Window



Path to reach the window - From the Main window press:

R ► **Quick menu**

This window lists the shortcut controls and buttons.

Furthermore ...

These commands are usable.

Shortcut keys = Keys for direct access to a menu (without having to following the entire path).

This type is also called: Rapid Access keys

See also the menu:

[Manual EV](#)

Note for GL models

The commands are also available in the following menu:

[Main Window](#)

The menu reminds the user of the commands available in the quoted window.

Furthermore ...

The menu helps identify the meaning of icons.



Stop phase/Automatic

Switches the operating mode.

The device performs the operation via a set series of movements in succession.

The sequence can be performed continuously, or articulated by stages.

Namely ...

The sequence can be performed either automatically or manually.

The icons indicate the status of the device and the related operations/ managements.

Press the following command on the keyboard: Fn+*



Forward by phases

First refer to what specified for the previous entry.

The command is only valid in the specific operating mode.

Await a few seconds between a command and the other to allow operations to be completed.

For the command to be effective, it must be held down together with the Stop button.

Press the following command on the keyboard: Fn+#



Crank mode

This item is specific for GK models.

About this see point: j) Electric crank .

The subsection comes under section: **Control panel**

The icon indicates the button operating mode. (The key is on the Control Panel.)

Press this button to change the operating mode.

This icon indicates that:

Holding the button down, the cylinder rotates.

This icon indicates that:

Each time the key is pressed, the cylinder moves about 2 degrees.



VPE position 2 special

This key allows you to locate the Vacuum Valve in way of having a suction forced from the side of the Sock ejection hood.

This position is maintained also when you release the key. When you press again this key the Valve back to previous position.

However, in the case the machine is put in motion, the Valve automatically returns to previous position.

Can be activated at any point of the program, only with the machine stopped.

This function is generally used when there are problems of "Stitch Release", or of "Sock Expulsion" failure.



VPE position 1

In this situation, suction acts on the turning device.

This position is maintained also when you release the key. When you press again this key the Valve back to previous position.

This function is useful when the sock has not been turned completely.

Can be activated at any point of the program, only with the machine stopped.

If there is no turning device, there will be an anti-twist device.

In this case, the function becomes ineffective.

However, in the case the machine is put in motion, the Valve automatically returns to previous position.



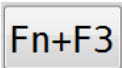
Needle opener 1

The command activates a blow to raise the needle latch.

The blow is positioned at the point at which the needle raises.

The command is always available.

If you release the key, the function deactivates.



Deactivate test program

When this command is pressed, a confirmation icon appears.

The command deactivates the .cs file at end of cycle, and resumes the previously processed sock programme (.co file).

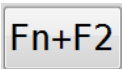
When this is completed, the icon disappears.

Press the following command on the keyboard: Fn+F3

See also ...

Please refer to point:

Main Window
15) Active Program



Delete special economizers

This function is used to produce the item by eliminating all the economizations present in the knit cycle.

This function can always be enabled.

Economisation is the number of times a chain step is repeated.

Unlike the command F2, this function is used to seam the sock.

The item is considered a reject by both the Robot and the Machine reject counters.

On the other hand ...

Cases where the item is considered reject only by the Machine reject counter.

- In the event of a failure type: Alarm
- When you press the key: F0, F1, F2, [Plate Raiser] .
- When you press the key: [Dial Raiser] . In this case only if the cylinder has been moved.

Press the following command on the keyboard: Fn+F2

Ctrl+A

Learning force

Via this command, the machine is requested to execute a new learning at the next sock cycle.

Concerning this see the menu:

Please refer to point:

Main Window

14) Yarn Sliding status

Ctrl+N

Control suspension

This command is used to stop controlling yarn feeding until the end of the sock, after which it is enabled automatically.

Ctrl+Q

Sinker replacement ON

Determines the shift in position of "Sinkers extraction" of the devices:

Sinkers cap

In practice the related motors, if enabled, execute a movement that moves these devices in a position allowing the user to perform the replacement of Sinkers.

This function can be activated at any point of the program, with the machine stopped.

Until to that these devices ("Caps") shall remain in "Sinkers extraction" position the "Run" is disabled.

With the next command ([Ctrl]+[W]) the various "Caps" return to its original position.

Ctrl+W

Sinker replacement OFF

Determines the shift in the original position from the "Sinkers extraction" position of the devices.

This function is the completion of a previous command of the shift in "Sinkers extraction" position ([Ctrl]+[Q]), and it is mandatory to restore the "Run".

Sock counter

Refer to the menu:

[Pieces counter menu](#)

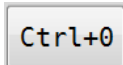


Bag ready

Using this command, the user confirms that ... The bag (in second position) has been emptied.
Activation of this function depends on the Setup value.

Refer to the menu:

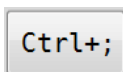
[Single-item-counter setting](#)



General sock-counter zeroing

The key can be pressed to reset the validly produced items, on the General Sock-counter. (*)
The command is NOT available in the following circumstances:

- Telematics network enabled.



Target/produced reminder (General sock-counter)

Whenever these keys are pressed, the "Programmed" value is subtracted from the "Produced" value. (*)

This operation is only significant when "Produced" is greater than "Programmed".



Increase sock-counter

Increase (up) of 1 of the value of the "Sock produced" of every "sock-counter". (*)
The value "Produced" is also displayed in the main window.



Decrease sock-counter

Decrease (down) of 1 of the value of the "Sock produced" of every "sock-counter". (*)
The value "Produced" is also displayed in the main window.

(*) The command is NOT available in the following circumstances: Active link-program (Go to the dedicated menu.).



Switch on external lighting

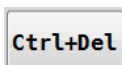
Direct operated for the lighting of external lighting.
Concerning this see the menu:
See also ...

[Lighting management](#)
[External lighting](#)



Switch off external lighting

First refer to what specified for the previous entry.
Direct operated for the shutdown of external lighting.



Reset

Creating a generic machine Reset alarm.

Black-out procedure

La procédure (automatique) de black-out garantit la sauvegarde des données de la machine (état, position, etc.) grâce à des batteries tampon. La procédure s'active quand la tension de ligne est absente ou quand la machine s'éteint.

Lors du rallumage, la machine reprend à partir du point où elle s'était arrêtée.

With an alarm active, switching off the machine does not launch the blackout procedure.

When the machine is turned on it reaches the End of Cycle step executing practically a Reset.

Navigating

Keys that lead to sub-menu
Touching the desired icon gives access to the corresponding menu.
For further details, refer to the same item in the handbook.



Help

This window is for consultation only.
At each operating status, on display in the dedicated area, is shown the corresponding icon.
The menu helps identify the meaning of icons.



Nautilus

Access the NAUTILUS menu in which is possible to execute some operating commands in the NAUTILUS management.

In this menu is available the configuration windows (with any submenu) concerning the management of the Dinema NAUTILUS system (Production control).

For details of the Dinema NAUTILUS network, contact Dinema S.p.A.



DCN2000

Dinema DCN network data exchange window display.

For details of the Dinema DCN network, contact Dinema S.p.A.

Further information is available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#)



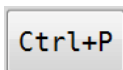
Programmed Stop

The menu is in progress.

This function can be activated at any point of the program.

In the menu you can stop the machine always at a point of the cycle.

There are several programming modes.



Modify raising dial motor ([Modify raising dial zone](#))

From this menu, it is possible to regulate the programmed values of the device.

Stop the machine at the desired step to adjust the value.

The modification of a tabular value affects all the points of the article in which it is inserted.

Modification of an absolute value only involves the point in which it is inserted.

The table of values is specific for each article.



Elastic setting1 ([Yarn zone](#))

In this window are displayed and is possible to alter the speed of feeding of the "Elastic" motor in the various points where it is included in the active program.

The speed of this motor determines the quantity of yarn (feeding) absorbed from the cylinder during the construction of the knitting fabric.



Elastic setting2 ([Yarn zone](#))

First refer to what specified for the previous entry.

In this case ... The item refers to the device: Elastic 2

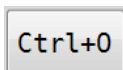


Modify elastic 1 and 2 by percentage

The zones in which the elastic speed is set are called "elastic zones".

Through the menu, you can modify the parameter in all the zones of a percentage value.

The variation can be either positive or negative.



Absorption/Loading cell ([Absorption YOYO](#))

In this window are displayed in real time, for each YOYO motor the "Yarn absorption" and the "Grams Tension" of the "Load Cell".



Modify YOYO ([Zone YOYO](#))

From this window you can access to the various Modify menu relating to the YOYO motors present in the active program.

In these menu, is possible to modify the "Grams Tension" value of each single YOYO.

This modify causes a change of the Tension with which the yarn create "Stitch" during the rotation cylinder.



Saw blade speed modification ([Yarn zone](#))

This menu can be used to correct the cutter speed.

In this window are displayed and is possible to alter the speed of rotation of the "Saw" motor in the various points where it is included in the active program.



Mod. stitch q.ty by cm/inch (Rest zones)

The zones in which the cylinder heights are set are called "narrowing zones".
This menu provides self-correction of the zone by entering the wrong measure.



Mod. stitch quality by step (Rest zones)

The zones in which the cylinder heights are set are called "narrowing zones".
This menu provides self-correction of the zone by entering the wrong measure.



Stretch modific. Percentage

The zones in which the cylinder heights are set are called "narrowing zones".
Through the menu, you can modify the parameter in all the zones of a percentage value.



Active link-program

(**Link list** = Articles programmed in the "Link Programs".)
In this window are displayed the data relating to "Active Link Programs".
In this window is also possible to modify the value of the "Produced socks".



Language change (Languages)

From this window, you can select the interface language.
The unavailable item is displayed in grey.



Production data

In this window is available a list of data referring to the various "Production times" and values of Efficiency for the machine.
Furthermore ... In this window is possible to modify time and date.



Bobbin end

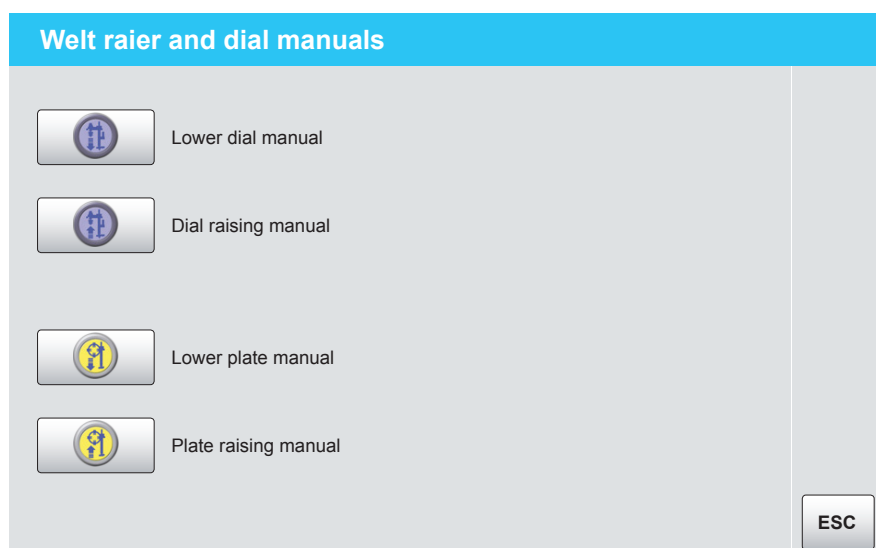
This window is used to program a machine stop after a set number of articles.
This function is useful when a yarn reel is about to terminate.



DINEMA Trace

This menu is for use by our technicians.
This information may be useful to Dinema for the analysis of the alarm problem.

Main Window



Path to reach the window

Stop * ► **Welt raier and dial manuals**

* = Hold down the button.

This item is specific for the models equipped with: **Raising dial motor** .

Note for GL models

See the following page.

Operating commands



Dial raising manual

Touching the icon, the mechanical unit moves upwards.



Lower dial manual

Touching the icon, the mechanical unit moves downwards.
Holding the command down, the device returns to the home position.



Plate raising manual

Touching the icon, the mechanical unit moves upwards.



Lower plate manual

Touching the icon, the mechanical unit moves downwards.
Holding the command down, the device returns to the home position.

Note for GL models

The command is also available from keyboard.



+ [Fn]

Holding down these keys determines the movement of the "Dial" to the top.



+ [Fn]

Holding down these keys determines the movement of the "Dial" to the bottom.
Holding the command down, the device returns to the home position.



+ [Fn]

Raise yarnfingers plate

When these keys are held down, the mechanical unit moves upwards.



+ [Fn]

Yarnfingers plate position

When these keys are held down, the mechanical unit moves downwards.
Holding the command down, the device returns to the home position.

Navigating

...

Return to previous menu

Return the mechanical unit to the home position.
Release button STOP.

Otherwise is displayed the error:

- Dial head not in correct position .
- Manual yarnfingers plate raising not completed .



Return to previous menu

Command not used.

Ctrl+A

Learning force

Via this command, the machine is requested to execute a new learning at the next sock cycle.

Concerning this see the menu:

Please refer to point:

Main Window

14) Yarn Sliding status

Ctrl+N

Control suspension

This command is used to stop controlling yarn feeding until the end of the sock, after which it is enabled automatically.

Ctrl+Q

Sinker replacement ON

Determines the shift in position of "Sinkers extraction" of the devices:

Sinkers cap

In practice the related motors, if enabled, execute a movement that moves these devices in a position allowing the user to perform the replacement of Sinkers.

This function can be activated at any point of the program, with the machine stopped.

Until to that these devices ("Caps") shall remain in "Sinkers extraction" position the "Run" is disabled.

With the next command ([Ctrl]+[W]) the various "Caps" return to its original position.

Ctrl+W

Sinker replacement OFF

Determines the shift in the original position from the "Sinkers extraction" position of the devices.

This function is the completion of a previous command of the shift in "Sinkers extraction" position ([Ctrl]+[Q]), and it is mandatory to restore the "Run".

Sock counter

Refer to the menu:

[Pieces counter menu](#)

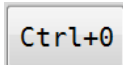


Bag ready

Using this command, the user confirms that ... The bag (in second position) has been emptied. Activation of this function depends on the Setup value.

Refer to the menu:

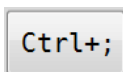
[Single-item-counter setting](#)



General sock-counter zeroing

The key can be pressed to reset the validly produced items, on the General Sock-counter. (*)
The command is NOT available in the following circumstances:

- Telematics network enabled.



Target/produced reminder (General sock-counter)

Whenever these keys are pressed, the "Programmed" value is subtracted from the "Produced" value. (*)

This operation is only significant when "Produced" is greater than "Programmed".



Increase sock-counter

Increase (up) of 1 of the value of the "Sock produced" of every "sock-counter". (*)

The value "Produced" is also displayed in the main window.



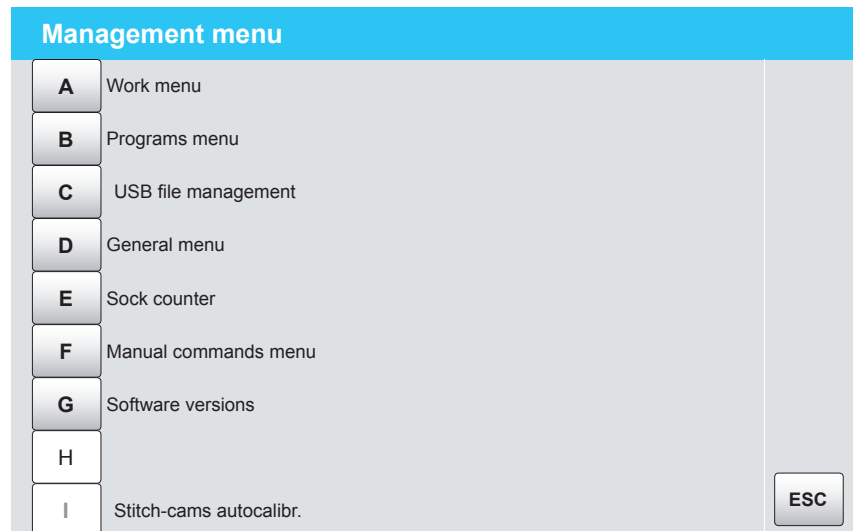
Decrease sock-counter

Decrease (down) of 1 of the value of the "Sock produced" of every "sock-counter". (*)

The value "Produced" is also displayed in the main window.

(*) The command is NOT available in the following circumstances: Active link-program (Go to the dedicated menu.).

Main Window



Path to reach the window - From the Main window press:

Space ► **Management menu**

This section contains most of the existing menus.

The machine is handled via the menus.

This window shows the items from which the entire menu structure originates.

From this window, from menus to submenus, you can reach the desired window.

Other windows can be reached directly from the main window also via a specific command.

This command is called "shortcut command".

Navigating

[A] Work menu

This menu is dedicated to the current article: can be used to set it and select the size.

This menu can be used to set the yarn feeding detecting system.

Access to the various menu (Setup, Enabling, Modify, etc.) on the YOYO devices.

[B] Programs menu

This menu can be used to handle operations with the programs already present (loaded) in memory.

These operations include that used to select the item to produce.

Concerning this see the menu: Activate program

[C] USB file management

This menu is dedicated to memory stick management.

The menu can only be accessed after inserting the USB device. This device must be connected to the relevant panel connector.

This menu can be used to carry out operations on the files contained in the memory medium. From this menu is then possible to access to all the different windows of USB and Software management.

[D] General menu

This section contains the machine configuration and diagnostic menus, i.e. those not directly involved in production.

This section contains the menu dedicated to (eprom and component) software operations and the telematic network.

[E] Sock counter

This menu is for output count and chain-sequenced program management.

[F] Manual command menu

This menu can be used to move the actuators.

[G] Software versions

From this window you can access the menu for the display of various software Versions in machine, and other internal informations.

The information written in this window is very important, because they allow to know the level of "Software update" of the machine, which "GRAPHITRON version" is compatible, and then a series of data that may be required by the Lonati company in case of problems or requests to update.

[I] Stitch cams self-calibration

Access to the menu for the "Stitch cams self-calibration" and "Yarnfingers configuration".

Management menu



Work menu	
A	Selects size
B	Graduation menu
C	Sinker cam cap menu
D	Elastic motors setting
E	Modify economizations
F	Yarns sliding
G	Saw blade speed modification
H	YOYO
I	Forcing solenoid shaking
J	External lighting
K	Modify raising dial motor
L	VPE modify menu
M	NYF
N	Modify stitch cams
ESC	

Path to reach the window - From the Main window press:

Space-A ► **Work menu**

This section contains the menus used to modify the characteristics of the article being produce. When the sample article has been completed, record in the GRAPHITRON the same variations and width values obtained.

If the program is taken up by the machine and then transferred or saved, it maintains the changes made to the menus.

This section contains the specific yarn feed control menu.

Furthermore ... This section contains the menus for: YOYO and External lighting .

Operating commands

[I] Forcing of solenoid shaking

With management enabled: This key can be pressed to force the solenoid valve "Shake" procedure.

This procedure consists of a sequence of commands controlling the movement of the various machine solenoid valves. To this end, please see paragraph: **Reference**

Use conditions: **Machine on hold at Step Zero.**

Otherwise: The unavailable item is displayed in grey.

(The corresponding key is not enabled.)

To interrupt the procedure (terminate the cycle), press the button again.

For further information see also:

[Machine management setting](#)

[A] Change active size

Access to the "Size selection" window.

Every sock program can contain 8 sizes, or 8 different sizes of the same item.

[B] Stitch menu

This menu is used to correct the knit width.

There are three different adjustment options.

[C] Sinker cap menu

Access to the menu for modifying the values of the various "Sinker Cap" motors.

Two different approaches are provided for adjustment.

[D] Modify elastic

Access to the menu for modifying the values of the various "Elastic and Lycra" motors.

[E] Modify economizations

Access to the menu for modifying Economizers values.

[F] Yarn sliding control

Access to the menu for the "Yarn Sliding Control" management.

The functions controlling correct yarn return are set via the menu.

[G] Saw blade speed modification

This menu can be used to correct the cutter speed.

[H] YOYO

Access to the various menu (Setup, Enabling, Modify, etc.) on the YOYO devices.



External lighting

In this window you can turn on or turn off directly the external Lighting, and possibly temporarily to adjust the time of auto power-off of the same.



Modify raising dial zone

This menu covers the Dial mechanical unit.

From this menu, it is possible to regulate the programmed values of the device.
Stop the machine at the desired step to adjust the value.

Work menu



Change active size

<input type="checkbox"/> 1	Size 1
<input type="checkbox"/> 2	Size 2
<input type="checkbox"/> 3	Size 3
<input type="checkbox"/> 4	Size 4
<input type="checkbox"/> 5	Size 5
<input type="checkbox"/> 6	Size 6
<input type="checkbox"/> 7	Size 7
<input type="checkbox"/> 8	Size 8

OK

ESC

Path to reach the window - From the Main window press:

Space-A-A ► **Change active size**

In this window it's possible to select the Size of the active sock program.

Modifiable parameters

Size

Possible sizes: from 1 to 8
Set the desired size.

Management commands

[1] ÷ [8]

Typing of a new value.

[Return] / (OK)

Confirmation of the values modified and exit from the window.

[Esc]

Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

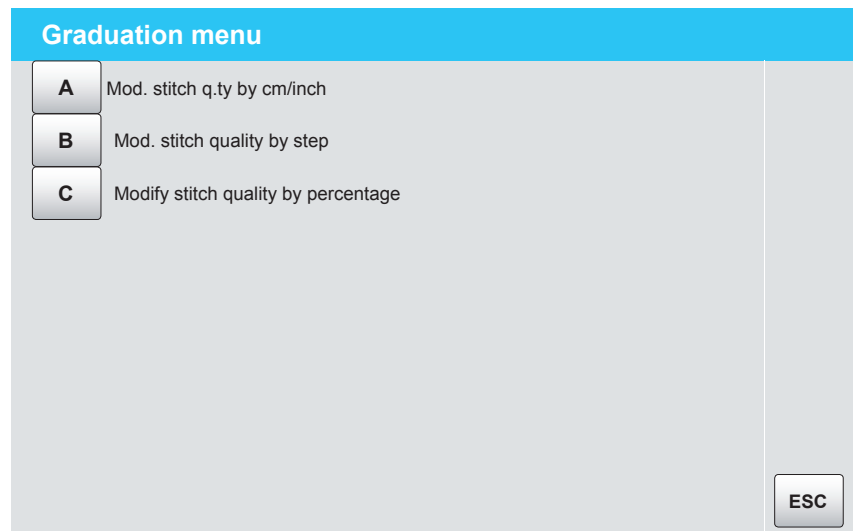
For further information see also:

[All-sizes modification enabling setup](#)

Path:

Space-D-C-A-C-B

Work menu



Path to reach the window - From the Main window press:

Space-A-B ► **Graduation menu**

This section contains the menus that can be used to adjust the knit width.

The cylinder height is one of the factors affecting the knit width.

The zones in which the cylinder heights are set are called "narrowing zones". These zones can be associated.

From a technical point of view, the variable can be adjusted thanks to a stepping motor. This motor is called: **Sizing motor**

[A] Mod. stitch q.ty by cm/inch

This menu provides self-correction of the zone by entering the wrong measure.

[B] Mod. stitch quality by step

This menu can be used to modify the parameter of each zone.

[C] Modify stitch quality by percentage

Through the menu, you can modify the parameter in all the zones of a percentage value.

[Esc] Return to previous menu

Exit from the window and return to previous page.

For further information see also:
Path:

[Set cylinder-raising motor](#)
Space-D-C-A-C-A-B

Graduation menu



Rest zones Inch

Size

Zone name	I	F	Ori.	New	Id		Steps	Min	Max

No active message

OK

ENT

F8

ESC

Path to reach the window - From the Main window press:

Space-A-B-A ► **Rest zones Inch**

The cylinder height is one of the factors affecting the knit width.

This menu provides self-correction of the zone by entering the wrong measure.

In these modify windows you can insert the measured value of "Stitch width" of the single zone.

The Stitch modify is made automatically by the machine, which varies the work quota of the "Sizing motor" according the value of "Stitch width" measured and inserted in the "modify field" of this window.

For further information see also:

Rest setup

From this menu you can choose the unit of measurement (cm or inch) for expressing knit width.

This menu provides self-correction of the zone by entering the wrong measure.

To obtain the sample value, you only need to enter the value found to be non-conforming.

Through a calculation, the software adjusts the cylinder height.

Any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Furthermore:

This window is used when the replacement of a yarn, during production, affects the sock width.

Meaning of data present in every column.

Size (Top right)

Size used by active program.

Zone name

Progressive number and name of the zone inside the chain.

The zones not displayed gradually move from the value of the previous zone to that of the next one.

I (Step start zone)

Step chain in which has been programmed the "Zone".

F (Step end zone)

Step chain in which has been programmed the "Zone".

Ori.

Value currently stored.

The set value of "Stitch width" must be the actual value of the sock that we want to produce.

New

Change area for the data value.

Id

The "knit zone association identifier" is shown.

If the identifier is present: At the next sock cycle, the modification involves in proportion all the associated zones.

This management is not currently active.

For information about the management of the Zones (Blocks) associated see the heading:

Associated-zones modification enabling setup (Rest setup / Zones association) .

Steps

Cylinder height: The value is expressed as motor steps.

Info-zone

Other information about the zone is shown.

This management is not currently active.

Modifiable parameters

New

Actual width obtained.

Insert in this field the value that deviates from the original one.

Enter in this field the value for the next sock cycles.

Use the large and small arrow keys to select the data (the line of interest).

With the [Small arrows] moves this Arrow/Cursor of selection under the data that you want to modify.

Directly insert the value through the numbers.

Before saving, check the text entered using the arrow keys.

Any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Window management

[↑] / [↓] [Small Arrow Up] / [Small Arrow Down]

With the arrows moves this cursor of selection under the data that you want to modify. **Select the step of interest.**

[▲] / [▼] [Large Arrow Up] / [Large Arrow Down]

Use the arrow keys to scroll through lists longer than one page.

Operating commands

[0] ... [9] **Numeric Keypad**

Directly insert the value through the numbers.

[Del] **Cancellation of the selected Data.**

Erases the characters from right to left in the field selected.

[Return] / (OK) **Confirm the data entered.**

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

[Ent] (*Set zone Inch / Set CM zone* , Enter the new value)

Access the submenu of editing.

After selecting the item of interest, use the command to modify its value.

See the pages that follow.

[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.

For further information see also:

Path:

[Set cylinder-raising motor](#)

Space-D-C-A-C-A-B

Rest zones Inch



Set zone Inch

Zone name

Id.

Chain step Start

Chain step End

Old value

0,00

Inch

New value

0,00

Inch

ENT

+/-0.25

-

+

Quote

Minimum

Maximum

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-B-A-Ent ► **Set zone Inch**

This window shows the detail for the selected Zone.

Please see the previous menu for the basic information.

Operating commands



Enter the new value

Access to the window ... [Numerical keyboard](#)

Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

[+] / [-]

The control increments the parameter. / The command decrements the parameter.

The minimum variation is: 10 units.

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Rest zones



Rest zones

Size

Zone name	I	F	Ori.	New		Id	Min	Max

No active message

OK

ENT

F8

ESC

Path to reach the window - From the Main window press:

Space-A-B-B ► **Rest zones**

In this window are displayed and is possible to alter the "Sizing" motor values in the active program. This value is practically the quota in "steps" of the "Stitch" motor.
In the window are displayed all the points of the sock in which has been programmed a "Sizing" zone. This menu can be used to modify the parameter of each zone.

New Change area for the data value.

Values in the Stitch zone

Meaning of data present in every column.

Size (Top right) Size used by active program.

I (Step start zone) Step chain in which has been programmed the "Zone".

F (Step end zone) Step chain in which has been programmed the "Zone".

Ori. Value currently stored.
The value is expressed as motor steps.

New Change area for the data value.

Id **The "knit zone association identifier" is shown.**
If the identifier is present: At the next sock cycle, the modification involves in proportion all the associated zones.

Modifiable parameters

New Enter in this field the value for the next sock cycles.

Use the large and small arrow keys to select the data (the line of interest).
With the [Small arrows] moves this Arrow/Cursor of selection under the data that you want to modify.
Directly insert the value through the numbers.

Before saving, check the text entered using the arrow keys.

Normally, any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Window management

[↑] / [↓] **[Small Arrow Up] / [Small Arrow Down]**

With the arrows moves this cursor of selection under the data that you want to modify. **Select the step of interest.**

[▲] / [▼] **[Large Arrow Up] / [Large Arrow Down]**

Use the arrow keys to scroll through lists longer than one page.

Operating commands

[0] ... [9] **Numeric Keypad**

Directly insert the value through the numbers.

[Del] **Cancellation of the selected Data.**

Erases the characters from right to left in the field selected.

[Return] / (OK) **Confirm the data entered.**

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Navigating

[Ent] **Enter the new value**

Access the submenu of editing. / Access to the virtual keyboard.

After selecting the item of interest, use the command to modify its value.

Therefore: Directly insert the value through the numbers.
See the pages that follow.

[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.

Reference

For further information see also:

Path:

[Set cylinder-raising motor](#)

Space-D-C-A-C-A-B

Rest zones



Set zone

Zone name	Id	OK			
<input type="text"/>	<input type="text"/>				
Chain step Start	Chain step End				
<input type="text"/>	<input type="text"/>				
Old value	New value				
<input type="text"/>	<input type="text" value="0,00"/>	ENT	+/- 10	-	+
Minimum	Maximum				
<input type="text"/>	<input type="text"/>				

No active message

F8
ESC

Path to reach the window - From the Main window press:

Space-A-B-B-Ent ► **Set zone**

This window shows the detail for the selected Zone.

Please see the previous menu for the basic information.

Operating commands

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

[+] / [-] The control increments the parameter. / The command decrements the parameter.

The minimum variation is: 10 units.

Navigating

Enter the new value

Access to the window ... [Numerical keyboard](#)



[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.

Graduation menu



Stretch modific. Percentage

Zone name	I	F	Ori.		Id	Min	Max

ENT

Percentage value:

0

% (-99/+99)

-

+

+/- 10%

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-B-C ► **Stretch modific. Percentage**

In this window is possible to modify in Percentage simultaneously all the Stitch/Size Zone of the active program.

The Stitch (Size) value display in the menus ("Steps Modify") remains the programmed, the real current value depends on the Percentage value set in this window.

The calculation is: $[\text{Real Value} = \text{Displayed value} + (\text{Displayed value}) * (\text{Percentage } \%)]$.

The zones in which the cylinder heights are set are called "narrowing zones".

Through the menu, you can modify the parameter in all the zones of a percentage value.

The variation can be either positive or negative.

In the first case, the knit widens up, in the second gets narrower.

The modification is temporary and does not assign new values to the motor in the program.

If no zone is modified through the other menus, the value remains active and visible.

This value is reset by changing the article.

Values in the Stitch zone

Meaning of data present in every column.

Size (Top right) Size used by active program.

I (Step start zone) Step chain in which has been programmed the "Zone".

- F** (Step end zone) Step chain in which has been programmed the "Zone".
- Ori.** Value currently stored.
The value is expressed as motor steps.
- New** Change area for the data value.
- Id** **The "knit zone association identifier" is shown.**
If the identifier is present: At the next sock cycle, the modification involves in proportion all the associated zones.
- Info-zone** Other information about the zone is shown.

Modifiable parameters

- Percentage value:** Enter in this field the value for the next sock cycles.
Directly insert the value through the numbers.
Before saving, check the text entered using the arrow keys.
Normally, any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Window management

- [▲] / [▼]** **[Large Arrow Up] / [Large Arrow Down]**
Use the arrow keys to scroll through lists longer than one page.

Operating commands

- [0] ... [9]** **Numeric Keypad**
Directly insert the value through the numbers.
- [Del]** **Cancellation of the selected Data.**
Erases the characters from right to left in the field selected.
- [+] / [-]** **The control increments the parameter. / The command decrements the parameter.**
The minimum percentage variation is: 10 units.
- [Return] / (OK)** **Confirm the data entered.**
This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

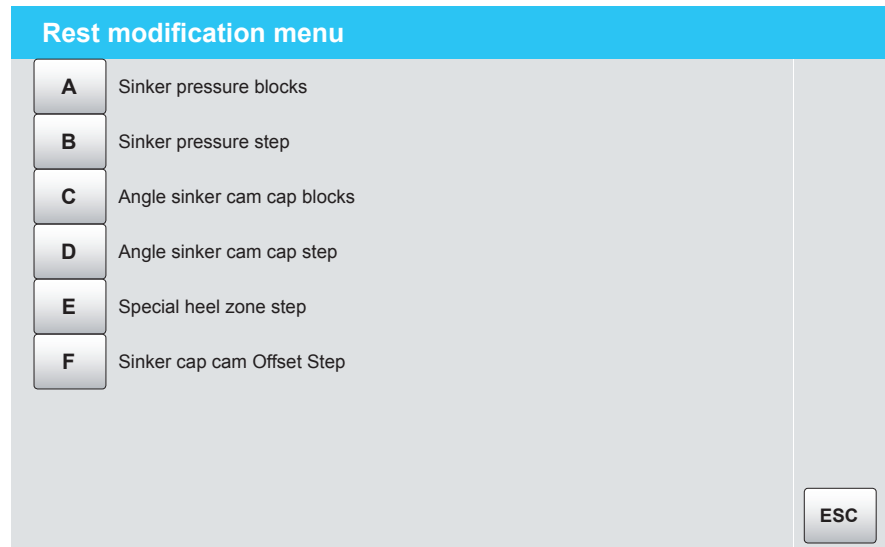
[Ent] (*Percentage value:*) **Enter the new value**

Access to the virtual keyboard.

[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.

Work menu



Path to reach the window

Space-A-C ► **Rest modification menu**

Rest modification menu



Rest zones

Size

Zone name	S	E	Ori.	New		Id	Min	Max

No active message

OK

ENT

M

F8

ESC

Path to reach the window

Space-A-C-A ► **Rest zones**

Rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
Minimum	Maximum	ENT
<input type="text"/>	<input type="text"/>	

No active message

F8
ESC

Path to reach the window

Space-A-C-A-Ent ► **Set zone**

Rest modification menu



Sink pressure step

Size

OK

Zone name	S	E	Ori.	New		Id	Max
-----------	---	---	------	-----	--	----	-----

0

-

+/- 5

+

No active message

M

F8

ESC

Path to reach the window

Space-A-C-B ► Sink pressure step

Rest modification menu



Rest zones

Size

Zone name	S	E	Ori.	New		Id	Min	Max

No active message

OK

ENT

M

F8

ESC

Path to reach the window

Space-A-C-C ► **Rest zones**

Rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
Minimum	Maximum	ENT
<input type="text"/>	<input type="text"/>	

No active message

F8
ESC

Path to reach the window

Space-A-C-C-Ent ► **Set zone**

Rest modification menu



Angle sinker cam cap step

Size

OK

Zone name	S	E	Ori.	New		Id	Max
-----------	---	---	------	-----	--	----	-----

0

-

+/- 5

+

No active message

F8

ESC

Path to reach the window

Space-A-C-D ► **Angle sinker cam cap step**

Rest modification menu



Special heel rest zones

Zone name	S	E	Ori.S	New	Ori.E	New		Id	Min	Max

A Modify Start

B Modify End

No active message

OK

F8

ESC

Path to reach the window

Space-A-C-E ► **Special heel rest zones**

Special heel rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
	ENT	
Minimum	Maximum	
<input type="text"/>	<input type="text"/>	

No active message

F8
ESC

Path to reach the window

Space-A-C-E-A ► **Set zone**

Special heel rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
Minimum	Maximum	ENT
<input type="text"/>	<input type="text"/>	

No active message

F8
ESC

Path to reach the window

Space-A-C-E-B ► **Set zone**

Rest modification menu



Special heel rest zones

Zone name	I	F	StepA	A-New	StepI	I-New	

AChange Forward

BChange Backward

No active message

OK

F8

ESC

Path to reach the window

Space-A-C-F ► **Special heel rest zones**

Special heel rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
	ENT	
Minimum	Maximum	
<input type="text"/>	<input type="text"/>	

No active message

F8
ESC

Path to reach the window

Space-A-C-F-A ► **Set zone**

Special heel rest zones



Set zone

Zone name	Id	OK
<input type="text"/>	<input type="text"/>	
Chain step Start	Chain step End	
<input type="text"/>	<input type="text"/>	
Old value	New value	+/- 10 - +
<input type="text"/>	<input type="text" value="0,00"/>	
	ENT	
Minimum	Maximum	
<input type="text"/>	<input type="text"/>	

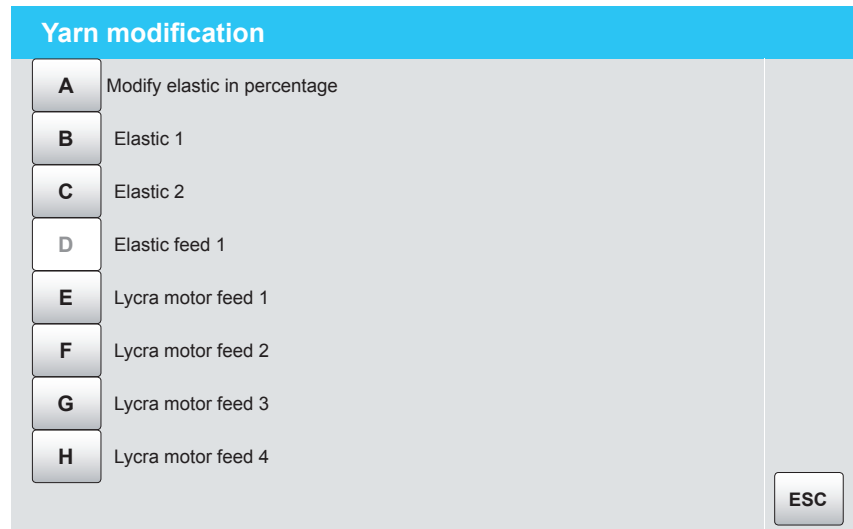
No active message

F8
ESC

Path to reach the window

Space-A-C-F-B ► **Set zone**

Work menu



Path to reach the window - From the Main window press:

Space-A-D ► Yarn modification

This menu can be used for adjusting the amount of spandex in the knit.

Spandex yarn is divided into two types: covered or bare. Covered spandex is called elastic. Bare spandex is simply called Spandex.

This menu contains the windows that can be used to precisely adjust the quantity of elastic for the article.

The quantity control is obtained by regulating the elastic motor speed.

The zones in which the elastic speed is set are called "elastic zones".

You can handle one zone individually or all the zones simultaneously.

The elastic zones of a feeder are independent from those of other feeders.

One or more items may be lacking, depending on the model.

This window lists the section menus, preceded by the access key. This button can be used to select the type of intervention.

[A] Modify elastic in percentage (Total elastic modification)

Through the menu, you can modify the parameter in all the zones of a percentage value.
Though present, the modification does not affect the motor: Elastic feed 1 (The device is present for Closed Toe models only.)

[B] ... [D] Elastic N

From this menu you can modify the work parameter in the zones of the specified feeder.

[E] ... [H] Lycra motor feed N

The button leads to a submenu for selecting the spandex feeding device.
This menu can be used to modify the work parameter in the zones of the specified feeder.

[Esc] Return to previous menu

Exit from the window and return to previous page.

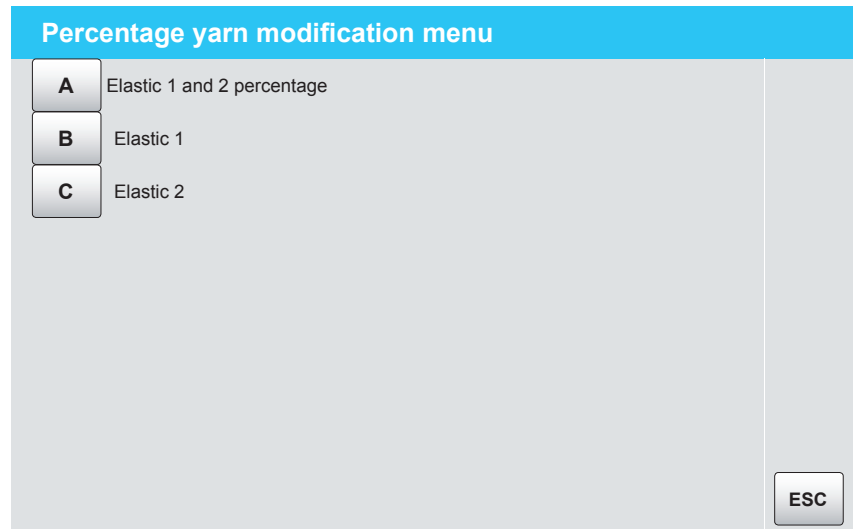
For further information see also:

Path:

[Setup elastic motors](#)

Space-D-C-A-F

Yarn modification



Path to reach the window - From the Main window press:

Space-A-D-A ► **Percentage yarn modification menu**

The zones in which the elastic speed is set are called "elastic zones".

In this window is possible to modify in percentage simultaneously all the Elastic Zone relating to a single motor of the active program.

The variation can be either positive or negative.

The motors interested in this type of modify are:

- **Elastic 1**
- **Elastic 2**
- **Elastic 1 and Elastic 2**

The modification is temporary and does not assign new values to the motor in the program.

The calculation is: $[\text{Real Value} = \text{Displayed value} + (\text{Displayed value}) \times (\text{Percentage } \%)]$.

If no zone is modified through the other menus, the value remains active and visible.

This value is reset by changing the article.

[A] Elastic 1 and 2 percentage

Through the menu, you can modify the parameter in all the zones of a percentage value.

[B] Elastic 1

In this window is possible to modify in percentage simultaneously all the Elastic Zone relating to a single motor of the active program.

From this menu you can modify the work parameter in the zones of the specified feeder.

[C] Elastic 2

In this window is possible to modify in percentage simultaneously all the Elastic Zone relating to a single motor of the active program.

From this menu you can modify the work parameter in the zones of the specified feeder.

Percentage yarn modification menu



Modify elastic 1 and 2 by percentage

Elastic 1	Ori.		Elastic 2	Ori.	

ENT

Percentage value:

0

% (-99/+99)

-

+

+/- 10%

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-D-A-A ► **Modify elastic 1 and 2 by percentage**

The zones in which the elastic speed is set are called "elastic zones".

Through the menu, you can modify the parameter in all the zones of a percentage value.

The variation can be either positive or negative.

The motors interested in this type of modify are:

- **Elastic 1 and Elastic 2**

The modification is temporary and does not assign new values to the motor in the program.

The calculation is: [Real Value = Displayed value + (Displayed value)*(Percentage %)].

If no zone is modified through the other menus, the value remains active and visible.

This value is reset by changing the article.

Values in the Stitch zone

Meaning of data present in every column.

Size	(Top right)	Size used by active program.
I	(Step start zone)	Step chain in which has been programmed the "Zone".
F	(Step end zone)	Step chain in which has been programmed the "Zone".
Ori.	Value currently stored. The value is expressed as motor steps.	
Percentage value:	Change area for the data value.	

Modifiable parameters

Percentage value: Enter in this field the value for the next sock cycles.

Directly insert the value through the numbers.

Before saving, check the text entered using the arrow keys.

Normally, any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Window management

[▲] / [▼] [Large Arrow Up] / [Large Arrow Down]

Use the arrow keys to scroll through lists longer than one page.

Operating commands

[0] ... [9] Numeric Keypad

Directly insert the value through the numbers.

[Del] Cancellation of the selected Data.

Erases the characters from right to left in the field selected.

[+] / [-] The control increments the parameter. / The command decrements the parameter.

The minimum percentage variation is: 10 units.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

Navigating


[Ent] (Percentage value:) Enter the new value

Access to the virtual keyboard.

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Percentage yarn modification menu



Modify elastic in percentage

Zone name	I	F	Ori.		Min	Max

ENT

Percentage value:

0

 % (-99/+99)

-

+

 +/- 10%

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-D-A-B ► **Modify elastic in percentage**

The zones in which the elastic speed is set are called "elastic zones".
In this window is possible to modify in percentage simultaneously all the Elastic Zone relating to a single motor of the active program.
The variation can be either positive or negative.
The motors interested in this type of modify are:

- **Elastic 1**

The modification is temporary and does not assign new values to the motor in the program.
The calculation is: $[\text{Real Value} = \text{Displayed value} + (\text{Displayed value}) \times (\text{Percentage } \%)]$.
If no zone is modified through the other menus, the value remains active and visible.
This value is reset by changing the article.

Reference

For window management, refer to the menu:
Path:

Modify elastic 1 and 2 by percentage
Space-A-D-A-A

Percentage yarn modification menu



Modify elastic in percentage

Zone name	I	F	Ori.		Min	Max

ENT

Percentage value:

0

% (-99/+99)

-

+

+/- 10%

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-D-A-C ► **Modify elastic in percentage**

The zones in which the elastic speed is set are called "elastic zones".

In this window is possible to modify in percentage simultaneously all the Elastic Zone relating to a single motor of the active program.

The variation can be either positive or negative.

The motors interested in this type of modify are:

- **Elastic 2**

The modification is temporary and does not assign new values to the motor in the program.

The calculation is: $[\text{Real Value} = \text{Displayed value} + (\text{Displayed value}) \times (\text{Percentage } \%)]$.

If no zone is modified through the other menus, the value remains active and visible.

This value is reset by changing the article.

Reference

For window management, refer to the menu:

Path:

Modify elastic 1 and 2 by percentage

Space-A-D-A-A

Yarn modification



Yarn zone

Zone name	I	F	Ori.	New		Min	Max

No active message

OK

ENT

F8

ESC

Path to reach the window - From the Main window press:

Space-A-D-B ► **Yarn zone**

In this window are displayed and is possible to alter the speed of feeding of the "Elastic" motor in the various points where it is included in the active program.

The speed of this motor determines the quantity of yarn (feeding) absorbed from the cylinder during the construction of the knitting fabric.

The zones in which the elastic speed is set are called "elastic zones".

These zones cannot be associated.

Each zone is characterized by the feeder speed.

From a technical point of view, the variable can be adjusted thanks to a stepping motor.

Values in the Stitch zone

Meaning of data present in every column.

Size	(Top right)	Size used by active program.
I	(Step start zone)	Step chain in which has been programmed the "Zone".
F	(Step end zone)	Step chain in which has been programmed the "Zone".
Ori.	Value currently stored. The value is expressed as motor steps.	
New	Change area for the data value.	

Modifiable parameters

New Enter in this field the value for the next sock cycles.
Use the large and small arrow keys to select the data (the line of interest).
With the [Small arrows] moves this Arrow/Cursor of selection under the data that you want to modify.
Directly insert the value through the numbers.
Before saving, check the text entered using the arrow keys.
Normally, any data modify becomes operational "At end of cycle", on the first transition to the step zero.

Window management

[↑] / [↓] **[Small Arrow Up] / [Small Arrow Down]**

With the arrows moves this cursor of selection under the data that you want to modify. **Select the step of interest.**

[▲] / [▼] **[Large Arrow Up] / [Large Arrow Down]**

Use the arrow keys to scroll through lists longer than one page.

Operating commands

[0] ... [9] **Numeric Keypad**

Directly insert the value through the numbers.

[Del] **Cancellation of the selected Data.**

Erases the characters from right to left in the field selected.

[Return] / (OK) **Confirm the data entered.**

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Navigating

[Ent] **Enter the new value**

Access the submenu of editing. / Access to the virtual keyboard.

After selecting the item of interest, use the command to modify its value.

Therefore: Directly insert the value through the numbers.

See the pages that follow.

[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.

Yarn zone



Set zone

Zone name

Chain step Start

Chain step End

Old value

Minimum

New value

0,00

ENT

+/- 10

-

+

Maximum

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-D-B-Ent ► **Set zone**

This window shows the detail for the selected Zone.

Please see the previous menu for the basic information.

Operating commands



Enter the new value

Access to the window ... [Numerical keyboard](#)

[+] / [-] **The control increments the parameter. / The command decrements the parameter.**

The minimum percentage variation is: 10 units.

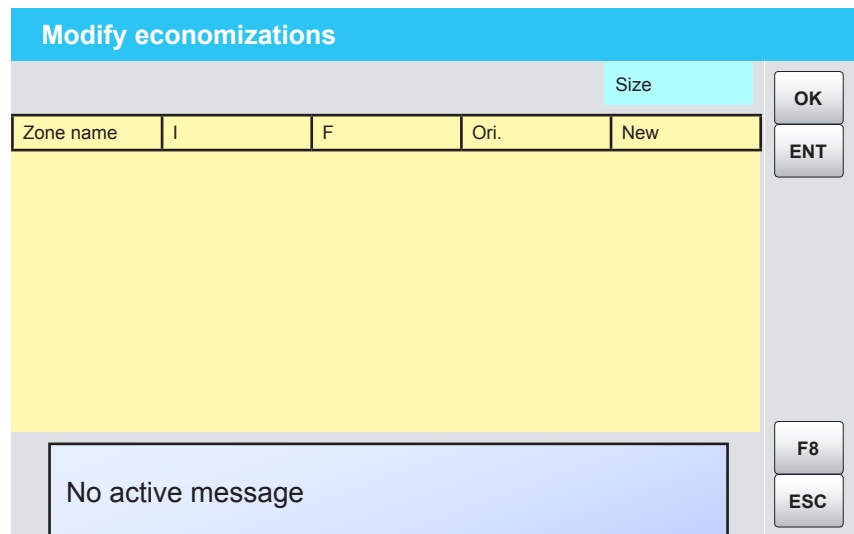
[Return] / (OK) **Confirm the data entered.**

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

[Esc] **Return to previous menu**

Exit from the window and return to previous page with eventually modify of data.



Path to reach the window - From the Main window press:

Space-A-E ► **Modify economizations**

This menu can be used to modify step and for-step "economisations" in the knit zones. Economisation is the number of times a chain step is repeated. The "for-step" is the number of times a step sequence is repeated. The for-step can recall economized steps.

Values in the Stitch zone

Meaning of data present in every column.

Size	(Top right)	Size used by active program.
I	(Step start zone)	Step chain in which has been programmed the "Zone".
F	(Step end zone)	Step chain in which has been programmed the "Zone".
Ori.	Value currently stored. The value is expressed as motor steps.	
New	Change area for the data value.	
Id	The "knit zone association identifier" is shown. If the identifier is present: At the next sock cycle, the modification involves in proportion all the associated zones.	
Info-zone	Other information about the zone is shown.	

Modifiable parameters

New	Enter in this field the value for the next sock cycles. Use the large and small arrow keys to select the data (the line of interest). With the [Small arrows] moves this Arrow/Cursor of selection under the data that you want to modify. Directly insert the value through the numbers. Before saving, check the text entered using the arrow keys. Normally, any data modify becomes operational "At end of cycle", on the first transition to the step zero.
------------	--

Window management

[↑] / [↓]	[Small Arrow Up] / [Small Arrow Down] With the arrows moves this cursor of selection under the data that you want to modify. Select the step of interest.
[▲] / [▼]	[Large Arrow Up] / [Large Arrow Down] Use the arrow keys to scroll through lists longer than one page.

Operating commands

[0] ... [9] Numeric Keypad

Directly insert the value through the numbers.

[Del] Cancellation of the selected Data.

Erases the characters from right to left in the field selected.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Navigating

[Ent] Enter the new value

Access the submenu of editing. / Access to the virtual keyboard.

After selecting the item of interest, use the command to modify its value.

Therefore: Directly insert the value through the numbers.

See the pages that follow.

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Reference

For further information see also:

Path:

[Set cylinder-raising motor](#)

Space-D-C-A-C-A-B

Modify economizations



Modify economizations on single zone

Zone name

Chain step Start

Chain step End

Old value

New value

ENT

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-E-Ent ► **Modify economizations on single zone**

This window shows the detail for the selected Zone.

Please see the previous menu for the basic information.

Operating commands

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

Enter the new value

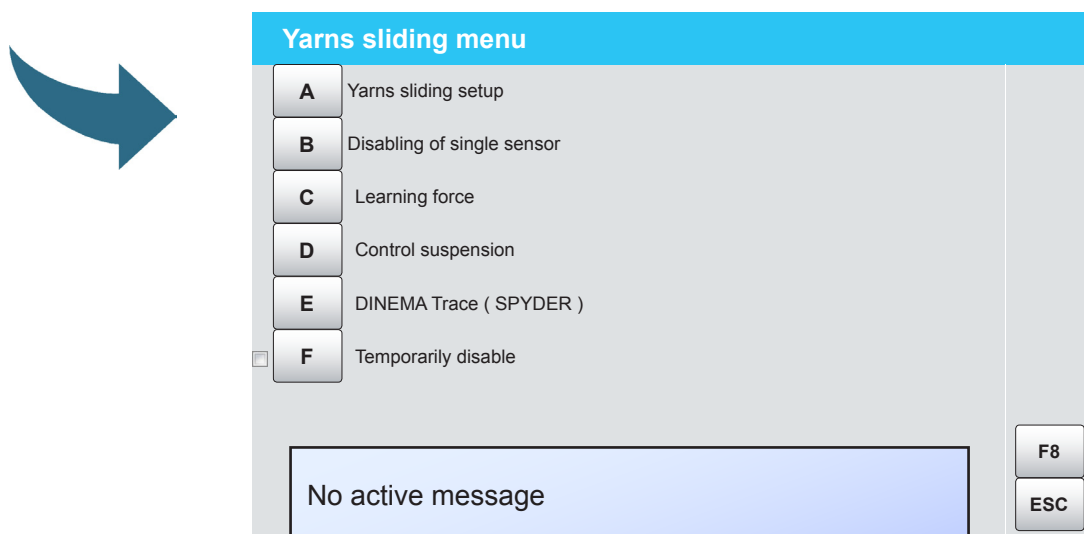
Access to the window ... [Numerical keyboard](#)



[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Work menu



Path to reach the window - From the Main window press:

Space-A-F ► **Yarns sliding menu**

The yarn sliding control system verifies correct recall of the yarns in the article.
The unit is comprised of a certain number of sensors that detect correct yarn feeding.
After a certain number of malfunctions the machine stops and displays the type of error and yarn underlying the sample cycle.

At each operating status, on display in the dedicated area, is shown the corresponding icon.

Concerning this see the menu:

Please refer to point:

Main Window
14) Yarn Sliding status

At present ...

For the models in question, the use of Spyder sensors is only envisaged. (Dinema S.p.A.).

The functions controlling correct yarn return are set via the menu.

From this window you can access to the various menu where is possible to view and modify all the "Yarn sliding sensors" parameters. (Menu A and B)

You can also activate directly some operating commands. (Item C, D , E and F)

Functioning

The control software initially needs to record the yarn behaviour when manufacturing a sample article. This step is called: **Yarn sliding: learning**

Learning comprises a variable number of sock cycles. This number depends on the working conditions of each sensor (yarns used, type of article, environmental conditions, etc.).

In the first sock cycle, only Learning is carried out; in the following cycles Learning is carried out with a comparison of (data) cycles; then Learning takes place with yarn feed verification.

Concerning this see the menu:

[Parameters of sensors](#)

► Path:

Space-A-F-A-C

In particular, refer to the paragraph:

[The operative status of the sensor](#)

The sensors reading is mainly determined by a series of parameter.

These parameters determine sensibility and characteristics of the signal detected by the sensor.

A fixed set of parameter values is identified as a "Level".

During the learning, according to readings detected by the sensor, the software adapts the parameters in order to obtain the best configuration for the type of yarn used.

During normal operation, the software keeps monitoring the quantity and quality of the real signal of sensors: if it considers that the preset "Level" is not the most effective one, it automatically changes it and adapts it to specific operating conditions.

The sensors that are blocked at "Level 0" and those in Optical Mode are excluded from this fine-tuning process.

Concerning this see the menu:

[Parameters of sensors](#)

In particular, refer to the paragraph:

[Choice of operation parameters for the sensors \(Levels\)](#)

The Optical Mode is available starting from Spyder 3S sensor.

[Otherwise: The unavailable item is displayed in grey.]

The values read during production are compared with those of the correct cycle (sample article). After a certain number of malfunctions the machine stops and displays the type of error and yarn underlying the sample cycle.

At this point the operator must intervene evaluating if the error is real or if it's just a false error, determined by a bad reading or by the functioning parameter setup ("Filters", "Sensibility", etc.) not efficient in those conditions.

These initial settings however already allow a good functioning.

Concerning this see the menu:

[Parameters of sensors](#)

See also ...

[Sensors filters](#)

When an article is activated, the user is prompted to confirm whether to keep the current levels in the sensors or start with the default levels.

To achieve this behaviour, you need to enable the specific entry.

Concerning this see the menu:

[Enable yarns sliding control](#)

For a correct functioning, even if is not essential, is useful that all the sensors mounted are updated with the same version.

This software must be compatible with the machine software, otherwise is displayed an alarm message of compatibility.

For basic information, refer to:

[Menu versions](#)

Notice



Any modification relative to the "Economizers" causes the suspension of the running phase, and in the next sock a "Learning" phase is activated.

If during the "Learning" phase the machine in any way stops the "Learning" phase will be suspended.

A new "Learning" phase will start in the next sock.



If, during the Sock Cycle are pressed some keys that involved on the same Sock Cycle, for example the [F2] key, the current yarn sliding stage is interrupted (suspended).

The next sock the Yarn Sliding system back in the Status above the Suspension.

Leds status of the SPYDER sensors

The sensors have two lights, one red and one green.

Each light can be Off, Flashing or On.

Each sensor can be Enabled or Disabled. The lights on the Disabled sensor are off.

The Enabled sensor can be operational or non-operational within a sock cycle. The operative sensors are those for which during the Learning is found to have a valid movement of the yarn.

Non-operational sensors are ones where yarn is not used for a particular article.

SOFTWARE UPGRADE

All sensors have both lights flashing during software update.

Yarn sliding: learning

During the Learning stage all the Red and Green led sensors will be switched On. The red light goes off when yarn movement is detected.

Yarn sliding: learning and controlling / Sliding wires in control

As in the previous phase. Furthermore:

Non-operating sensors will only have the red led switched on.

The values read during production are compared with those of the correct cycle (sample article).

When a sensor detects non-conforming behaviour, the red light on it flashes.

Yarn sliding sensors identification

The Leds status in the case of Numbering procedure or Addition/Replacement of the sensors is described in the Chapters relating to these functionality.

SPYDER software version

The instructions in this chapter refer to control following the version: 6.0

For further information see also:
In particular, refer to the paragraph:

[Quick menu](#)
[Operating commands](#)

C

Learning force

Via this command, the machine is requested to execute a new learning at the next sock cycle.

This operation can be carried out at any point in the sock cycle.

This function is used, for example, if you want suspend the control of the actual sock, and you considers that the Learning is no valid, and then you should perform a new Learning for the next sock, not testing the sock current.



D

Control suspension

This command is used to stop controlling yarn feeding until the end of the sock, after which it is enabled automatically.

If, during the Sock Cycle are pressed some keys that involved on the same Sock Cycle, for example the [F2] key, the current yarn sliding stage is interrupted (suspended).

This function determines the suspension of the phase of Learning/Control yarn sliding may be taking on size active.

The next sock the Yarn Sliding system back in the Status above the Suspension.



F

Temporarily disable

This command is used to stop controlling yarn feeding.
Active management is ticked.

The Yarn Sliding control system has been interrupted by the user. It can be enabled via the same command.

The system remains disabled until a new turning on of the machine, which determines the automatic rehabilitation of the System, which is in the status above the "Disabling" (Learning or Control).



E

DINEMA Trace (SPYDER)

Command used to create a diagnostic file of recent behaviour.

This file contains data for the last completed sock cycle. The data recorded refer to behaviour of the single sensors.

Concerning this see the menu:

[Export file log](#)

A**Yarns sliding setup**

From the menu you can:

- Enable/ Disable the functioning of the "Yarn sliding" system of control.
- Perform the Identification of the serial sensors of the Yarn sliding system.
- Alter the parametrs related the Filters used for the Yarn sliding control.

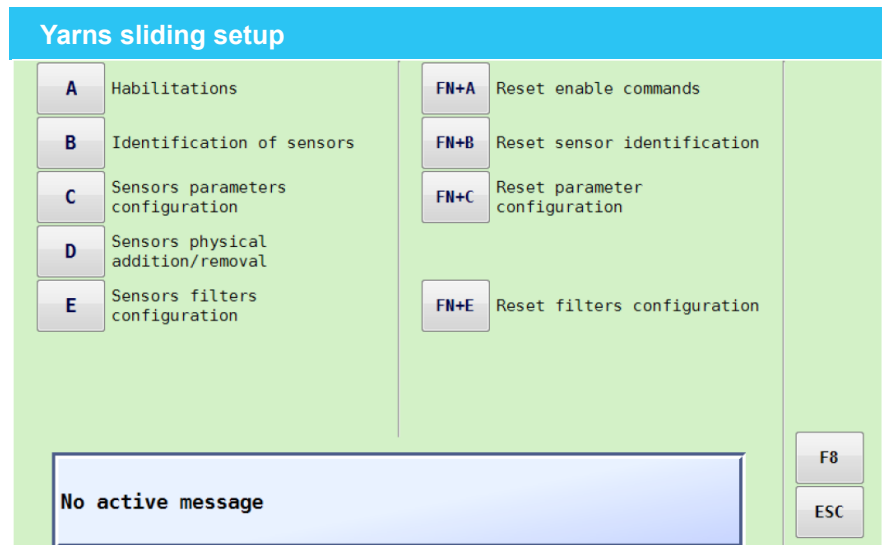
Furthermore: The menu contains the specific reset command for the settings given.

B**Disabling of single sensor**

Through this function we can disable a faulty sensor: it will be excluded from the control of "yarn sliding" (will not give errors) until the machine will not have been turned off.

The next time you turn on the machine the sensor we will enable automatically.

Yarns sliding menu



Path to reach the window - From the Main window press:

Space-A-F-A ► **Yarns sliding setup**

Through the menu is possible to ...

Go to the dedicated menu.

In particular ...

From the submenu you can:

- Enable/ Disable the functioning of the "Yarn sliding" system of control.
- Perform the Identification of the serial sensors of the Yarn sliding system.
- Select the sensor to view/ change the Level.
- Perform the identification of any sensors that are added/removed/replaced.
- Alter the parametrs related the Filters used for the Yarn sliding control.

Furthermore:

The menu contains the specific reset command for the settings given.

A

Enable yarns sliding control

From the menu you can:

- Enable/ Disable the functioning of the "Yarn sliding" system of control.
- Enable/ Disable the management of the following function:
Request operation on programme activation parameters

By pressing Fn + "key at the beginning of the item" will be performed the Reset.

B

Yarn sliding sensors identification

In this window you can perform the Identification of the serial sensors of the Yarn sliding system. Automatically the software reads the number of linked sensors and sets the correct number.

By pressing Fn + "key at the beginning of the item" will be performed the Reset.

C

Parameters of sensors

Access to the operating "Level" menu for each sensor.

In this window are displayed and is possible to alter all the configuration parametrs related the Serial sensors used in the system for the Yarn sliding control.

By pressing Fn + "key at the beginning of the item" will be performed the Reset.

D

Sensors physical addition/removal

In this window the user can perform a reduced Identification for only the sensors added or replaced. Furthermore:

Through the menu is possible to ... Confirm the removal.

E

Sensors filters

In this window are displayed and is possible to alter all the configuration parametrs related the Filters used in the system for the Yarn sliding control.

These parameters practically determine how many consecutive errors detected are necessary before stopping the machine by viewing the specific error.

By pressing Fn + "key at the beginning of the item" will be performed the Reset.

Fn+A

Reset enable commands

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

Fn+B

Reset sensor identification

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

Therefore: **Must be carried out a new numbering.**

Fn+C

Reset parameter configuration

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

All levels “0” will be deleted, namely those personalised by the user.

The change determines the loss of the previous Learning and therefore, in automatic, in the machine it will activate the status of Learning.

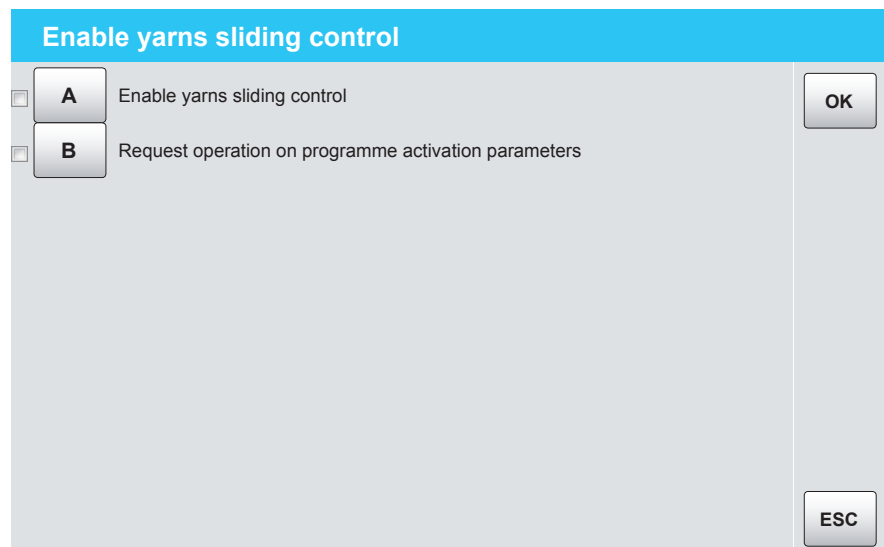
Fn+E

Reset filters configuration

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

The change of these parameters not determines the loss of the previous Learning.

Yarns sliding setup



Path to reach the window - From the Main window press:

Space-A-F-A-A ► **Enable yarns sliding control**

From the menu you can:

- Enable/ Disable the functioning of the "Yarn sliding" system of control.
- Enable/ Disable the management of the following function:
Request operation on programme activation parameters

Select with the special letter the setting you want.

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.

Enabling

A

Enable yarns sliding control

With management enabled:

The yarn sliding control system verifies correct recall of the yarns in the article.

With management disabled:

The Yarn Sliding control system is not enabled.

At each operating status, on display in the dedicated area, is shown the corresponding icon.

The relevant commands are NOT available.

The disabled system is excluded from the machine data analysis.

As a result no control shall verify the "Yarn sliding" status (uncut or broken).



B

Request operation on programme activation parameters

With management enabled:

When an article is activated, the user is prompted to confirm whether to keep the current levels in the sensors or start with the default levels.

Current Levels include the 10 software Levels and those adjusted by the user (Levels 0).

In case of an affirmative reply ([Y]) : When an article is enabled, the levels of all the sensors are the standard ones defined by the software.

With management disabled:

When an article is enabled, the levels of all the sensors are the standard ones defined by the software.

Maintenance of the Levels is needed if the next article uses the same yarns of the previous one. In this way, the sensor parameters will be already optimised.

Concerning this see the menu:

[Parameters of sensors](#)

Yarns sliding setup



Yarn sliding sensors identification

Number of connected sensors

Sensor ID

0

0

↓

↑

ENT

A

Numerical keyboard

Cancel

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-F-A-B ► **Yarn sliding sensors identification**

In this window you can perform the Identification of the serial sensors of the Yarn sliding system.

Identification consists of assigning a number to each device.

In practice: Each device must be numbered so that the software can recognise it.

The menu is operative only if data acquisition is required.

Namely ... The dedicated memory is completely empty.

This can happen if the procedure has never been performed, or the Reset has been carried out.

In case of Addition, Replacement, or Removal of one or more sensors....

Concerning this see the menu:

[Sensors physical addition/removal](#)

Perform a new sensors Identification.

To this end, please see paragraph:

Procedure

Launch the reset command before executing a new acquisition.

Therefore: The following message appears: 17. 4 .

Refer to the menu:

[Yarns sliding setup](#)

Sizes displayed



Number of connected sensors

Automatically the software reads the number of linked sensors and sets the correct number.
When you enter the window the current parameter value is shown.

Settings

Selection



Sensor ID (Device being numbered.)

Field for entering the ID number of the device being numbered.
To this end, please see paragraph:

Operating commands

The field indicates the number that will be assigned to the next energized sensor.
Sensor energising consists of simulating a yarn run (for example, by inserting and moving up and down a small plastic strip at the point at which the yarn runs).
Energize the sensor that you want to identify with the specified number.
The variable can assume the maximum value of: 40 .

Operating commands



Cancel

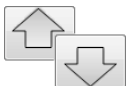
Returns to the previous menu, cancelling any changes made.
The current procedure is interrupted. The procedure restarts from the beginning when you re-access the menu.

Number of sensor (Sensor ID)



Sensor number quick selection

Access to the window ... [Numerical keyboard](#)
Use the numeric keys to type the value.



Number of sensor (Increases / decreases the value.)

Select the device.
Use the arrow keys to scroll through the list of available codes.
Confirm with [OK].
The list of codes not yet assigned reduces gradually as you advance.

Further information is available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#)

Identification consists of assigning a number to each device.
(Yarn sliding sensors identification = Numeration).

When you enter this menu, the procedure starts up.
The following message appears: 17. 17 .

At the start of the procedure all the sensors are displayed without any LED switched on.



View the field: **Number of connected sensors** .
Automatically the software reads the number of linked sensors and sets the correct number.



View the field: **Sensor ID** .
The field indicates the number that will be assigned to the next energized sensor.
The software identifies the first sensor with number "1".



Evaluate the ordinal number to assign. (Operating commands)
Therefore: Energize the sensor that you want to identify with the specified number.



Following energising, on the sensor the Green LED comes on, to confirm its correct identification.



View the field: **Sensor ID** .
The first available number appears automatically in the field.



Repeat from point ... 3 .
At the end of numbering a notice warning the user.
In fact:
The following message appears: 17. 22 .



Confirm with [OK].
to escape without saving ... Press the key: [Esc]

Yarns sliding setup



Parameters of sensors

Number of sensor	VSS	1	VTC			ENT	OK	
Level	<input type="text"/>	-	+	0	Manual			Help
Default	<input type="text"/>	T			Optical mode			
Copy values	C		X		Restore values			
				R		E		F8
No active message								ESC

Path to reach the window - From the Main window press:

Space-A-F-A-C ► **Parameters of sensors**

First consult the information contained at the start of the section.
Refer to the menu:

Yarns sliding menu

The window shows for each device the currently set discrete level and the sensor state.
The first line indicates the number of the sensor to which the data present in the next line are referred.

The change determines the loss of the previous Learning and therefore, in automatic, in the machine it will activate the status of Learning.

Choice of operation parameters for the sensors (Levels)

The sensors reading is mainly determined by a series of parameter.

These parameters determine sensibility and characteristics of the signal detected by the sensor.

A fixed set of parameter values is identified as a "Level".

During the learning, according to readings detected by the sensor, the software adapts the parameters in order to obtain the best configuration for the type of yarn used.

During normal operation, the software keeps monitoring the quantity and quality of the real signal of sensors: if it considers that the preset "Level" is not the most effective one, it automatically changes it and adapts it to specific operating conditions.

The sensors that are blocked at "Level 0" and those in Optical Mode are excluded from this fine-tuning process.

These internal parameters are:...

Sensor attenuation , Sensor sensibility , Frequency for start , Frequency for stop , Firm yarn threshold , Slid. yarn threshold .

Some values of these parameters have been grouped into fixed combinations ("set").

A fixed set of parameter values is identified as a "Level".

The software provides 10 Levels.

During the learning ...

The software for each sensor establishes a Level (optimal), starting from the default one. (An algorithm is used to perform this operation.)

The user can modify this value.

The change determines the loss of the previous Learning and therefore, in automatic, in the machine it will activate the status of Learning.

The Level chosen by the user will be the new default value.

Furthermore:

The user can create other personalised sets, labelled "Level 0", by changing the base values.

Levels 0 can be as many as the sensors.

Level 0 becomes a fixed value, i.e. it is no longer subject to the software algorithm.

Creating Level 0 (new set of parameters)

Select the sensor (for which you wish to change the base parameters).

If necessary, choose the Level from where to start.

In this regard you can consult a reference table.

The table contains explanations of the sub-window (see subsequent menu).

Therefore:

To create this Level 0 the user must enter [0].

At this point, a window appears showing the values of the selected Level.

Proceed with the change and save.

To this end, please see paragraph:

Navigating

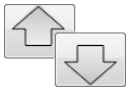
Functioning

In this window are displayed and is possible to alter all the configuration parametrs related the Serial sensors used in the system for the Yarn sliding control.

These parameters are inside the sensor (they are written by the software inside of each sensor) and the variation can determine a different sock Learning, therefore for each of their variations all the "Learning" of sliding present in the memory are cancelled.

Window management

Number of sensor (Sensor ID)



Number of sensor (Increases / decreases the value.)

Select the device.

Use the arrow keys to select the sensor of which you wish to display the operating status.

Operate the keys to select the sensor to view/change the Level (that is parameters).



Sensor number quick selection

Access to the window ... [Numerical keyboard](#)

Use the numeric keys to type the value.

Sizes displayed



Number of sensor

Sensor number to which are reported the below parameters.

Select the sensor to view/ change the Level.

Identification Number of the sensor. :

See also the menu:

[Disabling of single sensor](#)

VTC

Sensor operating mode (perceptive mode).

The icon indicates the selected operation mode for the sensor.

Concerning this see the menu:

[Enable "optical" mode for each sensor](#)

Capacitive Mode

This is the standard mode of operation.

In this operating mode, the signal sent by the sensor depends on the electrostatic charge of the yarn being fed.

In this mode is active the automatic procedure for changing Levels to adapt to the real amount of the signal detected by the sensor.

The sensors that are blocked at "Level 0" and those in Optical Mode are excluded from this fine-tuning process.



Optical mode

The sensor is used in the Optical Mode in the case of yarns with little electrostatic charge or wet yarns.

The Optical Mode is available starting from Spyder 3S sensor.

With standard yarns, from the experience we have seen that in order to obtain the same results of the reading of the signal in the Optical Mode "Level" must have a value incremented by 2 with respect to the Capacitive Mode.

The sensor always remains locked on the Level set by the user.



VSS

The operative status of the sensor

At each operating status, on display in the dedicated area, is shown the corresponding icon.

See also the paragraph:

[Navigating](#)

Single sensor learning

This icon indicates that:

The sensor is in the first sock cycle, i.e. that dedicated solely to yarn movement learning.



Single sensor learning and control: "Level"

This icon indicates that the device is in the following stage or state:

The sensor has entered the series of sock cycles dedicated to sensitivity level self-regulation.



Single sensor learning and control: "Repeat"

This icon indicates that the device is in the following stage or state:

The levels have now been established.

The sensor has reached the penultimate sock cycle of the Learning phase.

The sensor now starts to check that the yarn moves (or stays still) at the right time.



Single sensor learning and control: "End"

This icon indicates that:

The sensor is performing the last learning cycle.



Single sensor control

This icon indicates that:
The sensor has moved to the pure motion control phase.



Single sensor disabled

This icon indicates that:
The sensor has been disabled via the specific menu.



No signal found for single sensor

This icon indicates that:
For the current article, no yarn movement have ever been detected in the sensor.
The sensors that have not found any movement of the yarn during the Learning are virtually disabled.



Default (Level)

The default is always visible in the window.

For further information see also:

[Operating commands](#)

Settings

Selection



Level

This parameter indicates sensor sensitivity to yarn movement.
Greater is the the value more sensitive is the device.

To this end, please see paragraph:
See also the paragraph:

[Operating commands](#)
[Navigating](#)



Change Level

With the keys is increased or decremented the Level of of the sensor selected.
Greater is the the value more sensitive is the device.



The change determines the loss of the previous Learning and therefore, in automatic, in the machine it will activate the status of Learning.

Copy valuse

Copy of the parameters related to the selected sensor in all the others sensors.
The command assigns the same Level of the displayed sensor to all the sensors.

The command is specific for each perceptive mode.



Copy valuse - Capacitative

In this case: Capacitive Mode .



Copy valuse - Optical

In this case: Optical mode .

Restore values

Restoration of the DEFAULT parameters, the standard configuration present in the software.
The command applies the default Level to all the sensors.

Pratically a "Reset" of the parameters is performed, in consequence for all the sensors will activate the standard parameters from "eprom custom".

The default is always visible in the window.

Refer to item: **Default**

The command is specific for each perceptive mode.



Restore values - Capacitative

In this case: Capacitive Mode .

All levels "0" will be deleted, namely those personalised by the user.



Restore values - Optical

In this case: Optical mode .



Parameters of sensors level

The menu is specific for:

Single sensor in capacitive mode

Access the menu of viewing and editing parameters "Specific internal" relating to yarn serial sensors.

In this window you can view and modify the values of the parameters.

This personalized "set" of parameters is identified as "Level 0".

Levels 0 can be as many as the sensors.



Enable "optical" mode for each sensor

Through the menu is possible to: Determine the operating mode of the device.

There are currently 2 options:

- Capacitive Mode (Default)
- Optical mode

The Optical Mode is available starting from Spyder 3S sensor.



Yarn sliding control help

The menu helps identify the meaning of icons.

Parameters of sensors



Parameters of sensors level			
Sensor attenuation	A	0	(0-7)
Sensor sensibility	B	0	(0-1023)
Frequency for start	C	0	(0-255)
Frequency for stop	D	0	(0-255)

OK

ESC

Path to reach the window - From the Main window press:

Space-A-F-A-C-0 ► **Parameters of sensors level**

Please see the previous menu for the basic information.

The menu is specific for:

Single sensor in capacitive mode

In this window you can view and modify the values of the parameters.

This personalized "set" of parameters is identified as "Level 0".

Levels 0 can be as many as the sensors.

When you enter the window the current parameter value is shown.

The range of values configurable is reported on the side of the parameter.

The definition of yarn stationary or in movement depends on how many times the signal detected exceeds some Reading thresholds (determined by sensibility parameter).

The values of the parameters "Frequency of Start and Stop" establish which signals be valid for the purpose of reading and which consider disorders and therefore be rejected, are practically filters for signal processing.

[A] Sensor attenuation

The sensor is built in order to be the most sensitive possible.

With maximum sensibility the reading of the sensor for many yarn may be not reliable.

Therefore, to lower its sensibility there is this parameter of attenuation, that in practice lowers in a uniform way all the internal parameter of the sensor that determine its sensibility.

With "Attenuation = 0" the sensor is set to maximum sensibility.

[B] Sensor sensibility

This parameter indicates the "Sensibility" of the sensor when reading the movement of the yarn.

The more this value is high and the more the sensor is sensitive to the movement, in other words it considers the yarn sliding even if the movement is very little.

The sliding of yarn inside the sensor generates a signal of amplitude variable dependent on the sliding quality and the yarn type

This signal is not continuous, but oscillates around the level of zero, in fact it is due to static electricity.

This parameter sets the threshold (lower and higher) that must overcome the signal, so that the sensor considers the yarn in sliding.

This general level of sensibility may be changed by acting on parameter "Attenuation".

[C] Frequency for start

This parameter sets the minimum number of consecutive exceedances of the upper and lower threshold of sensibility, at which the software considers the yarn in sliding for sampling following.

[D] Frequency for stop

This parameter sets the minimum number of milliseconds without exceedances of the sensibility threshold after which is reset the counter of the "Frequency of Start".

Non-editable parameters

Firm yarn threshold

The sliding of yarn inside the sensor generates a signal of amplitude variable.

The value is parameterized.

This parameter determines the (equal or less) value below which the yarn is to be considered "stopped".

Slid. yarn threshold

The sliding of yarn inside the sensor generates a signal of amplitude variable.

The value is parameterized.

This parameter determines the (equal or less) value above which the yarn is to be considered "sliding".

Parameters of sensors

The table shows the values when it is drawn up.
Lonati reserves the right to change data without notice.

L	A	B	C	D	E	F
1	7	56	5	15	7	12
2	7	56	5	15	5	10
3	7	56	5	15	3	8
4	6	63	5	30	5	10
5	5	69	4	30	4	9
6	4	69	4	30	3	8
7	3	69	4	30	4	9
8	2	69	4	30	3	7
9	1	90	3	30	2	6
10	0	90	2	30	1	4

Legend

L = Level
A = Attenuation
B = Sensibility
C = Frequency for start
D = Frequency for stop
E = Firm yarn threshold ⁽¹⁾
F = Slid. yarn threshold ⁽²⁾

(1) , (2) : **These parameters are set in the software and may not be modified.**

[A] ... [D] Enter the new value

Access the submenu of editing. / **Access to the virtual keyboard.**

Therefore: Directly insert the value through the numbers.

Confirm with [OK]. and Press [ESC] to exit .

When you enter the window the current parameter value is shown.

The range of values configurable is reported on the side of the parameter.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

Attention



The variation of these parameters determine the suspension of the "yarn sliding" phase, in the next sock will start a new Learning phase, furthermore all the "Learning" of sliding present in the memory are cancelled.

Note



These configuration parameters are important for the correct functioning of the control system of the "Yarn sliding".

In the machine software some values are imposed that function in most cases, but these values are tied to the type of yarn and to the type of knitting of the specific yarn, therefore you can also differ from the standard values suggested in the Lonati machine software.

For an eventual and correct modification of these parameters you must have present their meaning and their range of intervention within the control system of the yarn.

Parameters of sensors



Enable "optical" mode for each sensor

<input type="radio"/> 1	<input type="radio"/> 9	<input type="radio"/> 17	<input type="radio"/> 25	<input type="radio"/> 33
<input type="radio"/> 2	<input type="radio"/> 10	<input type="radio"/> 18	<input type="radio"/> 26	<input type="radio"/> 34
<input type="radio"/> 3	<input type="radio"/> 11	<input type="radio"/> 19	<input type="radio"/> 27	<input type="radio"/> 35
<input type="radio"/> 4	<input type="radio"/> 12	<input type="radio"/> 20	<input type="radio"/> 28	<input type="radio"/> 36
<input type="radio"/> 5	<input type="radio"/> 13	<input type="radio"/> 21	<input type="radio"/> 29	<input type="radio"/> 37
<input type="radio"/> 6	<input type="radio"/> 14	<input type="radio"/> 22	<input type="radio"/> 30	<input type="radio"/> 38
<input type="radio"/> 7	<input type="radio"/> 15	<input type="radio"/> 23	<input type="radio"/> 31	<input type="radio"/> 39
<input type="radio"/> 8	<input type="radio"/> 16	<input type="radio"/> 24	<input type="radio"/> 32	<input type="radio"/> 40

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-F-A-C-T ► **Enable "optical" mode for each sensor**

Through the menu is possible to: Determine the operating mode of the device.

There are currently 2 options:

- Capacitive Mode (Default)
- Optical mode

The Optical Mode is available starting from Spyder 3S sensor.

Enabling

1 ÷ 40 : Enable “optical” mode for each sensor

Operation is enabled or disabled by touching the case.

The key flag (circle next to the number or letter) is empty when management is NOT enabled.

With management enabled:

The device operating mode is: Optical mode

With management disabled:

The device operating mode is: Capacitive Mode

Concerning this see the menu:

[Parameters of sensors](#)

In particular, refer to item:

Sensor operating mode (perceptive mode).

Operating commands

[Ent] / (_ □) Enable/ Disable

Select the item and press the button to Enable/ Disable, the management.

Or click the virtual button on the display.

The selected field is indicated by an arrow.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

Wait until completion of saving in the Flash memory.

Parameters of sensors

Or ...

Sensors filters



Yarn sliding control help

1	Single sensor learning
2E	Single sensor learning and control: "End"
2L	Single sensor learning and control: "Level"
2R	Single sensor learning and control: "Repeat"
	Single sensor control
	No signal found for single sensor
	Single sensor disabled

ESC

Path to reach the window - From the Main window press:

Space-A-F-A-C-Help ► **Yarn sliding control help**

Or ...

Space-A-F-A-E-Help ► **Yarn sliding control help**

The menu helps identify the meaning of icons.

Yarns sliding setup



Sensors physical addition/removal

Number of connected sensors	<input type="text" value="0"/>	<input type="button" value="OK"/>
Sensor ID	<input type="text" value="0,00"/>	

Numerical keyboard

Cancel

Number of removed sensors	<input type="text" value="0"/>	<input type="button" value="F8"/> <input type="button" value="ESC"/>
Number of appended sensors	<input type="text" value="0"/>	

No active message

Path to reach the window - From the Main window press:

Space-A-F-A-D ► **Sensors physical addition/removal**

In this window the user can perform a reduced Identification for only the sensors added or replaced.
Furthermore:
Through the menu is possible to ... Confirm the removal.

Foreword

Each sensor/ device connected in CAN mode to the the machine is to be considered as a CAN board.

Each CAN board has a univocal identification code; the software associates this code with the number previously attributed by the user.

(This takes place during the Identification procedure. [= CAN modules numeration])

The software is therefore always be able to identify if you have added, removed or replaced sensors/ devices.

In case of Addition, Replacement, or Removal of one or more sensors.

This operation must be performed with the machine turned off.

After which: Turn on the machine again.

An appropriate error warns the user.

From the Error window you can also quickly access this menu.

Confirmation of the sensors removed.

If the software detects only sensors removed, by pressing [OK] in this window is confirmed this removal, by eliminating from Setup the sensors not more found.

When several sensors are moved at the same time, the window shows one identification number only.

In case of Addition or Replacement of one or more sensors.

If the software also encountered sensors added, or replaced, you will be able to perform their Identification; when will be saved to the procedure will be confirmed also the removal.

Procedure

Identification consists of assigning a number to each device.

(Yarn sliding sensors identification = Numeration).

When you enter this menu, the procedure starts up.

The following message appears: 17. 17 .

At the start of the procedure all the sensors are displayed without any LED switched on.

See the following page.



View the field: **Number of connected sensors** .
Automatically the software reads the number of linked sensors and sets the correct number.



The device being numbered has one light off. The green light is the one that goes off.
The only sensor with the Red Led ON is to be identified.



View the field: **Sensor ID** .
The first available number appears automatically in the field.



Evaluate the ordinal number to assign. (Operating commands)
Confirm with [OK].



After which:
Another sensor is ready to be numbered, namely turns off the Green Led.



Repeat from point ... 2 .
At the end of numbering a notice warning the user.
In fact:
The following message appears: 17. 22 .



Confirm with [OK].
to escape without saving ... Press the key: [Esc]

Sizes displayed



Number of connected sensors

Automatically the software reads the number of linked sensors and sets the correct number.
When you enter the window the current parameter value is shown.



Number of removed sensors

Number of sensors removed compared with the current configuration in the Setup.



Number of appended sensors

Number of sensors added compared with the current configuration in the Setup.

Selection



Sensor ID (Device being numbered.)

Field for entering the ID number of the device being numbered.
To this end, please see paragraph:

Operating commands

The device being numbered has one light off. The green light is the one that goes off.
The only sensor with the Red Led ON is to be identified.

Operating commands



Cancel

Returns to the previous menu, cancelling any changes made.
The current procedure is interrupted. The procedure restarts from the beginning when you re-access the menu.

Number of sensor (Sensor ID)



Sensor number quick selection

Access to the window ... [Numerical keyboard](#)
Use the numeric keys to type the value.



Number of sensor (Increases / decreases the value.)

Select the device.
Use the arrow keys to scroll through the list of available codes.
Confirm with [OK].
The list of codes not yet assigned reduces gradually as you advance.



Confirmation of the selected value. / Confirm the data entered.

In this context the key has two functions.

- Confirmation of the selected value.
- This command is used to save the values defined in the menu.

Yarns sliding setup



Sensors filters

Number of sensor	VSS	<input type="text" value="0"/>	VTC	<input type="button" value="↓"/>	<input type="button" value="↑"/>	<input type="button" value="ENT"/>	<input type="button" value="OK"/>
Filter wire does not cut		<input type="button" value="A"/>	<input type="text" value="0"/>	(1-30)			
Broken yarn H		<input type="button" value="B"/>	<input type="text" value="0"/>	(1-30)			
Broken yarn L		<input type="button" value="D"/>	<input type="text" value="0"/>	(1-30)			<input type="button" value="Help"/>
High-Speed yarn filter broken		<input type="button" value="E"/>	<input type="text" value="0"/>	(1-30)			
Copy values		<input type="button" value="C"/>					

No active message

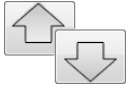
Path to reach the window - From the Main window press:

Space-A-F-A-E ► **Sensors filters**

In this window are displayed and is possible to alter all the configuration parametrs related the Filters used in the system for the Yarn sliding control.

These parameters practically determine how many consecutive errors detected are necessary before stopping the machine by viewing the specific error.

Number of sensor (Sensor ID)



Number of sensor (Increases / decreases the value.)

Select the device.

Use the arrow keys to select the sensor of which you wish to display the operating status.

Operate the keys to select the sensor to view/change the Level (that is parameters).



Sensor number quick selection

Access to the window ... [Numerical keyboard](#)

Use the numeric keys to type the value.

Sizes displayed



Number of sensor

Sensor number to which are reported the below parameters.

Select the sensor to view/ change the Level.

Identification Number of the sensor. :

See also the menu:

[Disabling of single sensor](#)



Sensor operating mode (perceptive mode).

The icon indicates the selected operation mode for the sensor.

Refer to the menu:

[Parameters of sensors](#)



The operative status of the sensor

At each operating status, on display in the dedicated area, is shown the corresponding icon.

Refer to the menu:

[Parameters of sensors](#)

Parameters

When you enter the window the current parameter value is shown.

In this window are displayed and is possible to alter all the configuration parameters related the Filters used in the system for the Yarn sliding control.

Their variation does not determine a different sock Learning, therefore the variation the "Learnings" of the sliding present in the memory are not cancelled.

Analogously ... A modification of these Filters does not cause the suspension of the "yarn sliding" phase.

These parameters practically determine how many consecutive errors detected are necessary before stopping the machine by viewing the specific error.

The parameter value determines how many consecutive faults cause the machine to stop.

The range of values configurable is reported on the side of the parameter.

The default value ensures a good response.

Lower values could cause stops unnecessary, because the error found could not be true. **With value "0" this control is disabled.**

Optimize control, in order to have less false errors, but at the same time, in the case of real error, a stop as quickly as possible.

Note for the models:

GOAL machines (single-cylinder models, for men's socks).

The software runs 2 readings of the sensors status in a cylinder revolution.

Double-cylinder models, for men's socks

The software runs 4 readings of the sensors status in a cylinder revolution.

A

Filter wire does not cut

In this case, the fault is of the type: uncut yarn

This type of error occurs when, in the control cycle, a yarn moves when it should remain stationary.

B

Broken yarn H

In this case, the fault is of the type: Broken yarn

This type of error occurs when, in the control cycle, a yarn remains still when it should move.



Broken yarn L

In this case, the fault is of the type: Broken yarn

This type of error occurs when, in the control cycle, a yarn remains still when it should move.

This error occurs only when a sensor, during a Sock Cycle, has detected a number of consecutive samplings with yarn in sliding lower than the value of "Filter broken H" and greater than "Filter broken L".

This can usually happen only for machines with special pattern, in which a yarn is knitted for only a few needles, without therefore never be able to reach a number of consecutive samplings with yarn in sliding sufficient for the intervention of error "Broken H".



High-Speed yarn filter broken

This Filter regards the only "Yarn broken" control.

It intervenes only in continuous motion and beyond a certain speed (variable depending on the machine model).

This speed, in general, is variable between the 150 Rpm and 180 Rpm.

The value to impose has to be lower than the "Filter broken yarn H", because it is needed to have a faster stop in certain conditions (yarn in constant movement) where the yarn does not show movement variations.

Operating commands



Copy values (Capacitative and Optical)

Copy of the parameters related to the selected sensor in all the other sensors.

Navigating



Yarn sliding control help

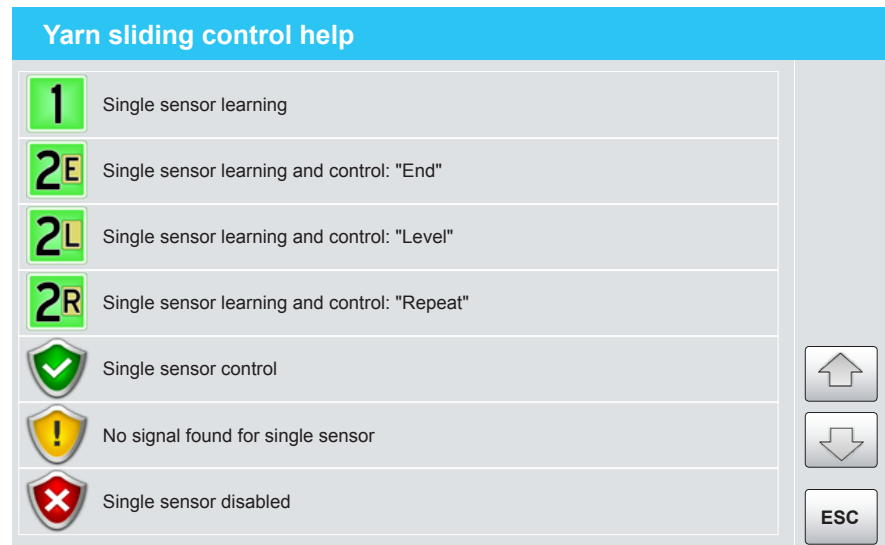
The menu helps identify the meaning of icons.

Further information is available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#)

Parameters of sensors

Or ...

Sensors filters



Path to reach the window - From the Main window press:

Space-A-F-A-C-Help ► **Yarn sliding control help**

Or ...

Space-A-F-A-E-Help ► **Yarn sliding control help**

The menu helps identify the meaning of icons.

Yarns sliding menu



Disabling of single sensor

<input type="radio"/> 1	<input type="radio"/> 9	<input type="radio"/> 17	<input type="radio"/> 25	<input type="radio"/> 33
<input type="radio"/> 2	<input type="radio"/> 10	<input type="radio"/> 18	<input type="radio"/> 26	<input type="radio"/> 34
<input type="radio"/> 3	<input type="radio"/> 11	<input type="radio"/> 19	<input type="radio"/> 27	<input type="radio"/> 35
<input type="radio"/> 4	<input type="radio"/> 12	<input type="radio"/> 20	<input type="radio"/> 28	<input type="radio"/> 36
<input type="radio"/> 5	<input type="radio"/> 13	<input type="radio"/> 21	<input type="radio"/> 29	<input type="radio"/> 37
<input type="radio"/> 6	<input type="radio"/> 14	<input type="radio"/> 22	<input type="radio"/> 30	<input type="radio"/> 38
<input type="radio"/> 7	<input type="radio"/> 15	<input type="radio"/> 23	<input type="radio"/> 31	<input type="radio"/> 39
<input type="radio"/> 8	<input type="radio"/> 16	<input type="radio"/> 24	<input type="radio"/> 32	<input type="radio"/> 40

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-A-F-B ► **Disabling of single sensor**

In this window you can disabling a single sensor of "Yarn sliding".

The disabled device is excluded from the analysis of the information sent to the machine.

The disabled sensor is excluded by the "Yarn sliding" system (e.g. for the Learning and Control phases this disabled sensors doesn't exist).

The sensor remain disabled until a following machine turning off.

To the following machine turning on the sensor will to return enabled.

Furthermore: The sensor automatically resumes the phase prior to disabling.

Enabling

1 ÷ 40 : Enable yarns sliding control

Operation is enabled or disabled by touching the case.

The key flag (circle next to the number or letter) is empty when management is NOT enabled.

With management enabled:

The device operating mode is:

Capacitive Mode or Optical mode

With management disabled:

The lights on the Disabled sensor are off.

The disabled device is excluded from the analysis of the information sent to the machine.

The disabled device is not handled even when it is connected.

To the following machine turning on the sensor will return enabled.

Operating commands

[Ent] / (_ □) Enable/ Disable

Select the item and press the button to Enable/ Disable, the management.

Or click the virtual button on the display.

The selected field is indicated by an arrow.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

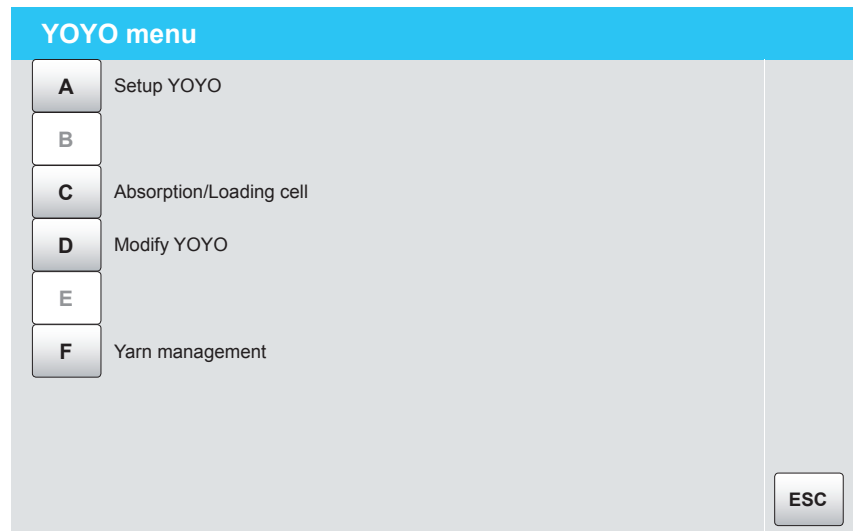
Wait until completion of saving in the Flash memory.

Note



Generally this function is used when, with a defected sensor, the operator wants however to reach at the end of cycle with the whole rest of the system in control.

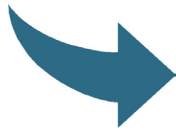
Work menu



Path to reach the window - From the Main window press:

Space-A-H ► **YOYO menu**

YOYO menu



Setup YOYO

A	Enable motors
B	Type of modification
C	YOYO numbering
D	Reset YOYO numbering

ESC

Path to reach the window - From the Main window press:

Space-A-H-A ► **Setup YOYO**

Setup YOYO



YOYO motor enabling

<input type="checkbox"/>	A	YOYO 1	<input type="checkbox"/>	G	YOYO 7	OK
<input type="checkbox"/>	B	YOYO 2	<input type="checkbox"/>	H	YOYO 8	
<input type="checkbox"/>	C	YOYO 3				
<input type="checkbox"/>	D	YOYO 4				
<input type="checkbox"/>	E	YOYO 5				
<input type="checkbox"/>	F	YOYO 6				

No active message

R
F8
ESC

Path to reach the window - From the Main window press:

Space-A-H-A-A ► **YOYO motor enabling**

Setup YOYO



YOYO numeration

Detected devices

YOYO in Numbering:

A

Cancel

OK

No active message

F8

ESC

Path to reach the window - From the Main window press:

Space-A-H-A-C ► **YOYO numeration**

YOYO menu



Absorption YOYO					
	Absorption	Cell		Absorption	Cell
YOYO 1	0,00	0,00	YOYO 5	0,00	0,00
YOYO 2	0,00	0,00	YOYO 6	0,00	0,00
YOYO 3	0,00	0,00	YOYO 7	0,00	0,00
YOYO 4	0,00	0,00	YOYO 8	0,00	0,00
Absorption in meter/minute Cell in grams					ESC

Path to reach the window - From the Main window press:

Space-A-H-C ► **Absorption YOYO**

In this window are displayed in real time, for each YOYO motor the "Yarn absorption" and the "Grams Tension" of the "Load Cell".

The first data is the "Yarn absorption", and is expressed in "metres per minute".

In practice is the calculation of the quantity of yarn that the cylinder in rotation absorbs in real time. The second data is the "Grams Tension" of the yarn, it is read by the "Load Cell" of the YOYO motor.

This value must be the most possible equal to the value programmed, that is precisely the task of the system "YOYO motor + Load Cell".

YOYO

Number of the YOYO motor.

Absorption

Yarn absorption in real time on the YOYO indicated.

The value is expressed in "metres per minute".

With machine stopped the value should be zero.

Cell

Yarn "Grams Tension", it is read by the "Load Cell" of the YOYO motor.

The value is expressed in "grams".

The value must always be near to the one set as programming.

If the wire is removed from the "Load cell", the displayed value will become around zero.

Notice

Note

This window allows the display only.

It, showing the data in real time, may be useful to the user for the adjustment, mechanical or by program, to run to obtain a "Stitch" equal and of the width desired for all the Yarn Feeds.

YOYO menu

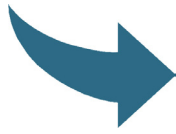


Modify YOYO	
A	YOYO 1
B	YOYO 2
C	YOYO 3
D	YOYO 4
E	YOYO 5
F	YOYO 6
G	YOYO 7
H	YOYO 8
ESC	

Path to reach the window - From the Main window press:

Space-A-H-D ► **Modify YOYO**

Modify YOYO



Zone YOYO

Zone name	I	F	Ori.	New		Min	Max

No active message

OK

ENT

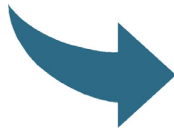
F8

ESC

Path to reach the window - From the Main window press:

Space-A-H-D-A ► **Zone YOYO**

Zone YOYO



YOYO single zone

Zone name

Chain step Start

Chain step End

Old value
 Grams

New value
 Grams

ENT

Minimum
 Grams

Maximum
 Grams

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

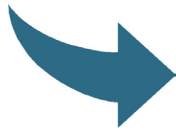
Space-A-H-D-A-Ent ► **YOYO single zone**

Linux - Goal - 2.5

Zone YOYO ► YOYO single zone

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YOYO menu



Yarn management		
	Management	
YOYO 1	<input type="text"/>	YOYO 5
YOYO 2	<input type="text"/>	YOYO 6
YOYO 3	<input type="text"/>	YOYO 7
YOYO 4	<input type="text"/>	YOYO 8
		<input type="button" value="ESC"/>

Path to reach the window - From the Main window press:

Space-A-H-F ► **Yarn management**

Work menu



External lighting

External lighting

X

Switch on external lighting

Z

Switch off external lighting

A

Switch-off time

0,00

(Min. 1-30)

OK

ESC

Path to reach the window - From the Main window press:

Space-A-J ► **External lighting**

In this window you can turn on or turn off directly the external Lighting, and possibly temporarily to adjust the time of auto power-off of the same.

Reference

For basic information, refer to:

The commands are also available in the following menu:

Lighting management
Quick menu

Operating commands

X

Switch on external lighting

Direct operated for the lighting of external lighting.
In any case ... The shutdown is given automatically after a specified time.

Z

Switch off external lighting

Direct operated for the shutdown of external lighting.

Settings

Parameters

A

Ext. lighting switch-off time

Enter the new value

Access to the window ... [Numerical keyboard](#)

Time is expressed in minutes.

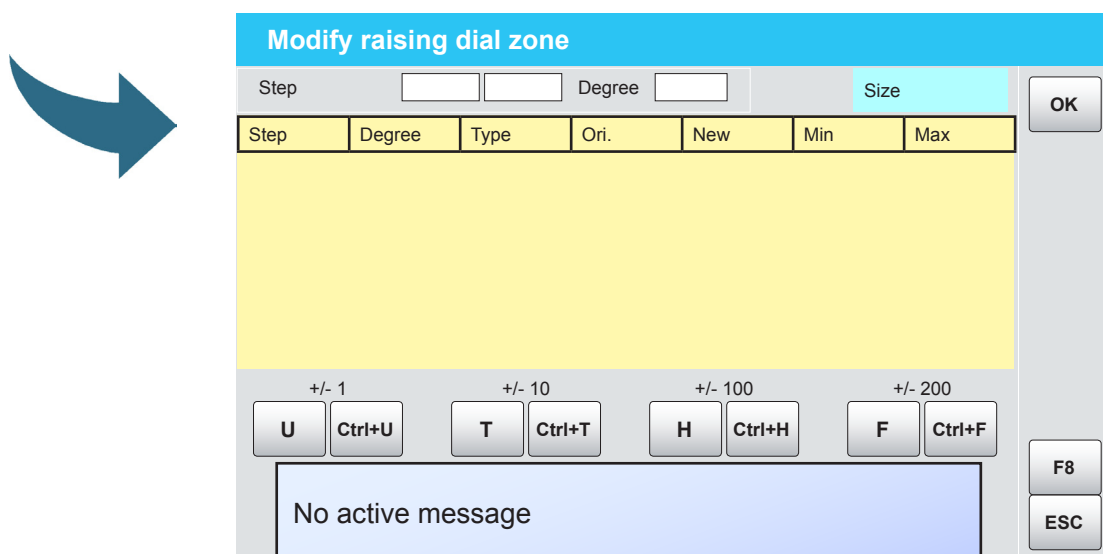
The variable can assume the minimum value of: 1 .

The variable can assume the maximum value of: 30 .

The value set is provisional, i.e. it remains valid until the cylinder comes to a stop.

The system then returns to the value defined in the dedicated setup menu.

Work menu



Path to reach the window

Space-A-K ► **Modify raising dial zone**

This item is specific for the models equipped with: **Raising dial motor** .

This menu covers the Dial mechanical unit.

From this menu, it is possible to regulate the programmed values of the device.

Stop the machine at the desired step to adjust the value.

The mechanical unit is raised via a stepping motor.

The movements are controlled via the program through the specific code.

In performing the command, the machine moves the device up to the desired position.

The position (height) can be free (absolute) or preset (tabular).

When controlling an absolute position from the program, the height of the device must be specified. The value is expressed as motor steps.

When a tabular position is entered in the program, a number from 0 to 15 must be specified.

Each number is associated to an absolute position of the device thanks to an internal association table.

The preset heights for the device are called "tabellar" values.

The modification of a tabular value affects all the points of the article in which it is inserted.

Modification of an absolute value only involves the point in which it is inserted.

Operating commands

OK

Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)


Wait until completion of saving in the Flash memory.

...

The control increments the parameter.

The minimum variation is:

1 / 10 / 100 / 200 units.

Ctrl+...

The command decrements the parameter.

The minimum variation is:

1 / 10 / 100 / 200 units.

Reference

See also the menu:

[Restoring menu](#)

Management menu



Programs menu / Management menu

Program	<input type="text"/>	Size	<input type="text"/>
Link	<input type="text"/>		

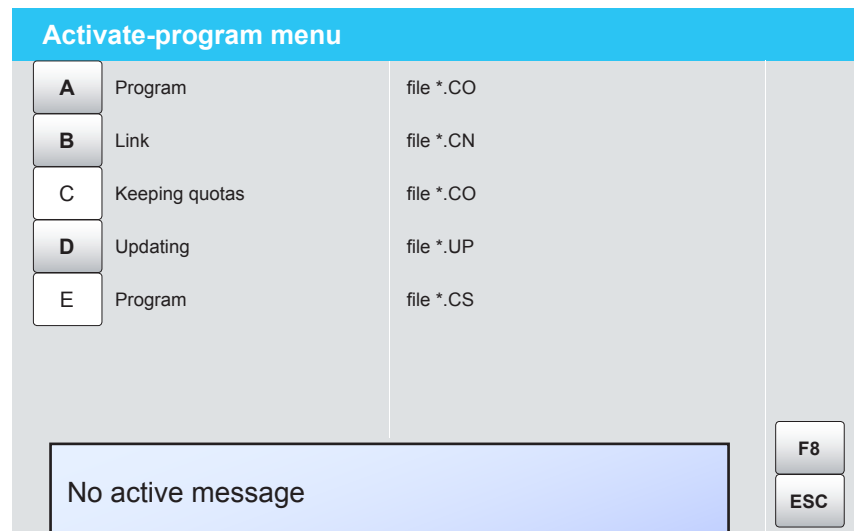
A	Activate program
B	Program restoring
C	List of programs
D	Delete programs

ESC

Path to reach the window - From the Main window press:

Space-B ► **Programs menu**

Programs menu



Path to reach the window - From the Main window press:

Space-B-A ► **Activate-program menu**

In this window are available the various menu for the programs "Activation".

In each of these menu is possible to activate a specific type of program (Sock, Link, Update, etc.).

This is a window for the transition to other menu.

Navigating

[A] - Program file *.CO

Access to the window from which you can activate a "Sock program" as created by GRAPHITRON.

[B] - Linkfile *.CN

Access to the window from which you can activate a "Link programs" (Link of "sock programs").

[C] - Keeping quotasfile *.CO

The menu is in progress.

Access to the window from which you can activate a "Sock program", maintaining any modify made on board machine.

Of course, the program must have the same name of that present in machine.

[D] - Updatingfile *.UP

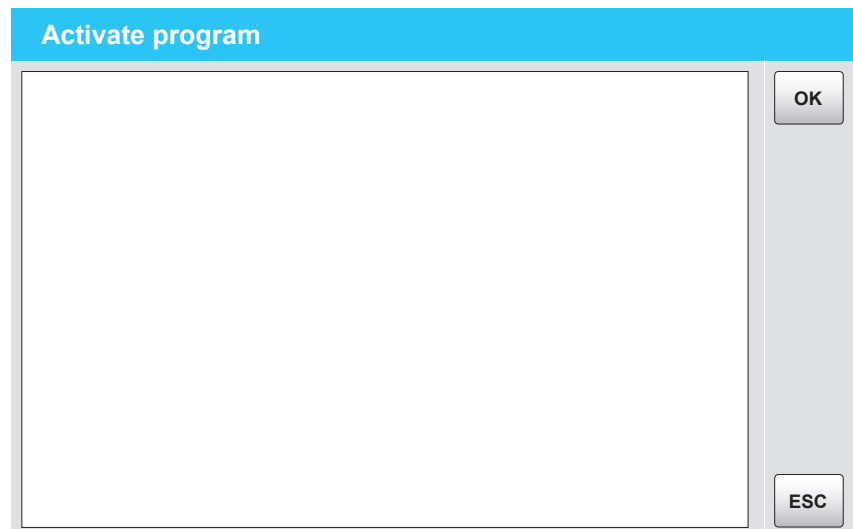
Access to the window from which you can activate a "Software update" file.

Reference

For further information, refer to the brochure:
For further information, refer to the brochure:

Machine software updating .
USB pen drive creation .

Activate-program menu



Path to reach the window - From the Main window press:

Space-B-A-A ► **Activate program**

In this window you accessed when you want to activate a new "Sock program" (file ".co" = Sock program).

Through this menu the activated program respects as defined by GRAPHITRON, are not therefore maintained any modify (for example the Stitch/Size modify) carried out on board machine.

When the program is activated, its name is written in its own area of the main window (Prog. ____).

Window content

The window is composed of pages with listed the names of files present in RAM memory of the machine.

These displayed files are only of the type: "Sock program" (files ".co").

Switch between the names and the windows to select the program to activate.

If the list exceeds the size of the window, a scroll bar appears.

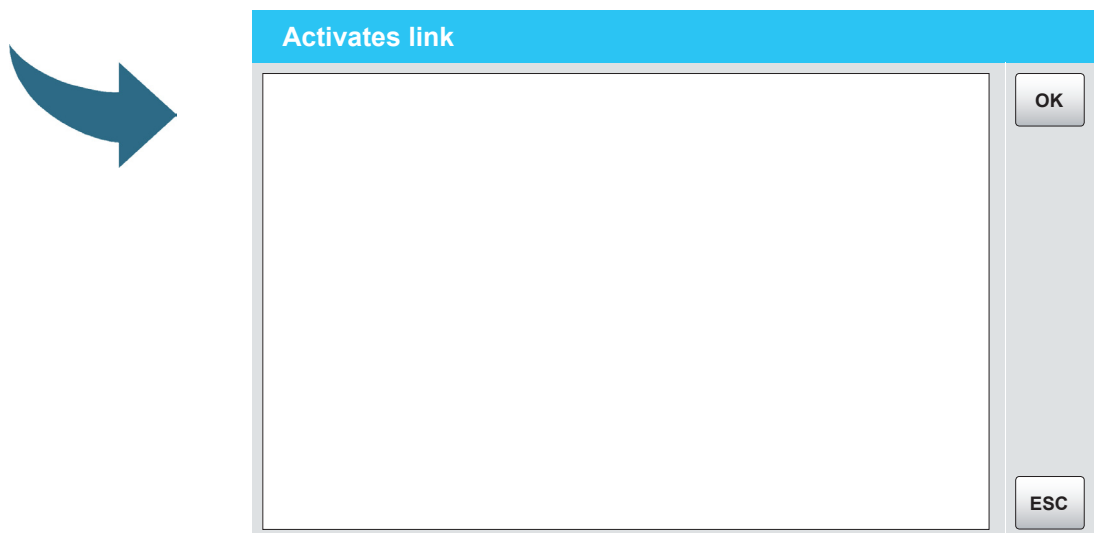
[Return]

Selection with consequent activation of the "Sock program".

[Esc]

Exit from the window and return to previous page.

Activate-program menu



Path to reach the window - From the Main window press:

Space-B-A-B ► **Activates link**

In this window you accessed when you want to activate a new "Link programs" (file ".cn" = Link programs).

When the program is activated, its name is written in its own area of the main window (Link ____).

Window content

The window is composed of pages with listed the names of files present in RAM memory of the machine.

These displayed files are only of the type: "Link programs" (files ".cn").

Switch between the names and the windows to select the program to activate.

Management commands

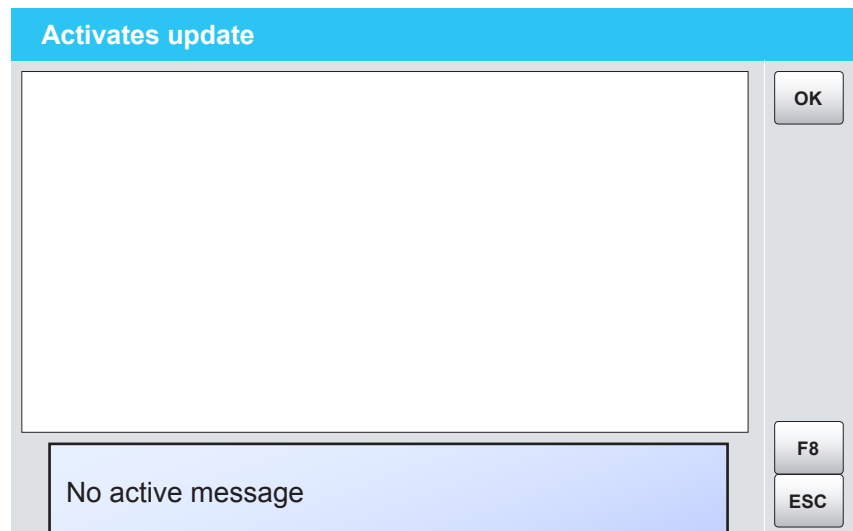
[Small Arrows Up/Down]

Moving of the selection cursor in the top and bottom.

[Return]

Selection with consequent activation of the "Sock program".

Activate-program menu



Path to reach the window - From the Main window press:

Space-B-A-D ► **Activates update**

In this window you accessed when you want to activate a ".up" file (Software or Setup); this is the copying of software from RAM memory to FLASH memory of the machine (Pcb 2007) itself, (practically is the Machine software updating).

In the window are listed all the ".up" files available in the machine RAM memory.

Window content

The window is composed of a single page with listed the names of all the ".up" files present in the machine RAM memory.

Switch between the names to select the file to copy in the machine FLASH memory (Machine software updating).

Management commands

[Small Arrows Up/Down]

Moving of the selection cursor in the top and bottom.

[Return]

Activation of the selected File (copy of the "Software file" from RAM memory to FLASH memory).

Danger

An operation of software update is very delicate, be sure of the "software version" you install, check with the technical staff Lonati.
The software is provided both by Lonati with the machine that available in Internet, but must be assessed always the type and version before proceeding with an upgrade.

Attention

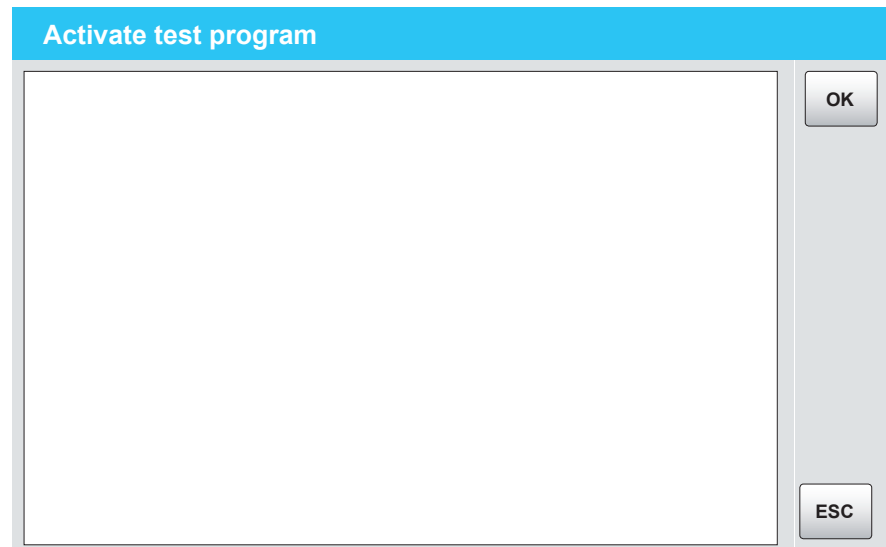
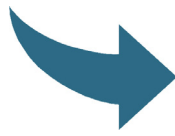
When you run a software update, depending on the version and of the increase in version, could happen that we can lose some or all of the configuration data machine (various Setup), and the "sock programs" in RAM memory.
The operator must therefore be able to run a complete machine configuration (Setup), before running a software update.

Reference

For further information, refer to the brochure:

- Update the machine software
-

Activate-program menu



Path to reach the window - From the Main window press:

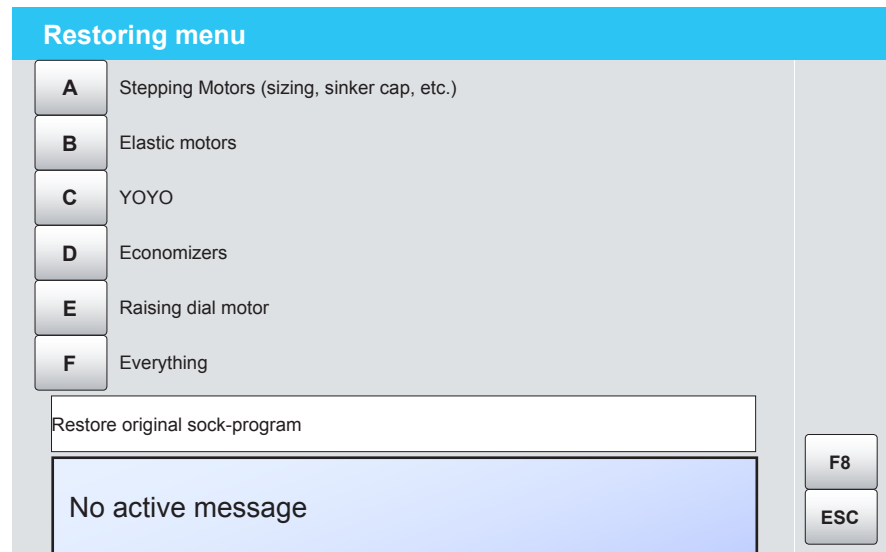
Space-B-A-E ► **Activate test program**

Management commands

[Small Arrows Up/Down]

Moving of the selection cursor in the top and bottom.

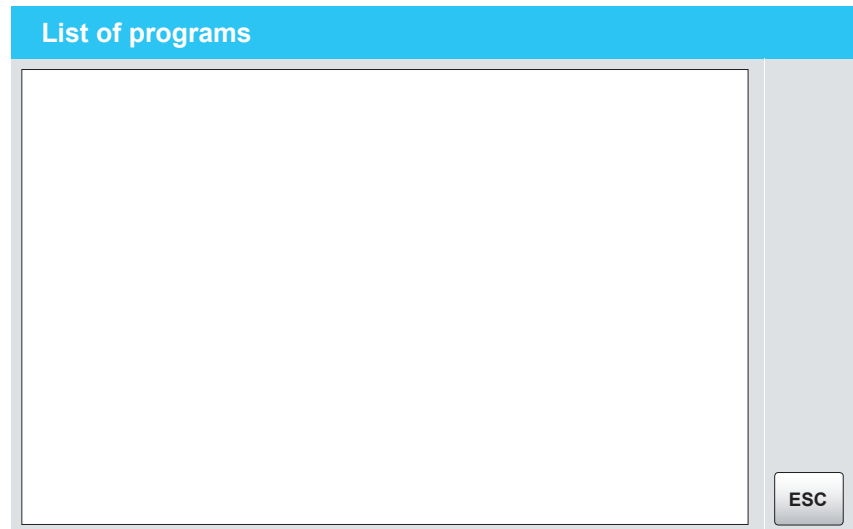
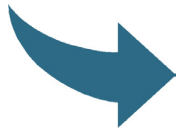
Programs menu



Path to reach the window - From the Main window press:

Space-B-B ► **Restoring menu**

Programs menu



Path to reach the window - From the Main window press:

Space-B-C ► **List of programs**

In this window (page 0 and subsequent) are displayed all the files present in the machine RAM memory of any type they are (extension: ".co", ".cn", ".dt", ".up", therefore Programs, Link programs, Diagnostic files, Software and Setup files).

Each file is also reported the size in bytes.

In the first line is given the free space remained in RAM memory.

Window content

The window is composed of pages with listed the names of files present in RAM memory of the machine.

Also, on the side of the name is displayed even the size.

Every line contains 2 programs, each window contains 5 lines (total 10 programs).

The first line of the window shows in bytes, the space available for the inclusion of other programs, with an alleged calculation of how many other programs can be inserted (not to be significant, because it depends on the size of the programs).

Navigating

[Esc]

Exit from the window and return to previous page.

Note

The sock programs (file ".sok") may be codified (through GRAPHITRON) in 2 different modes.

A normal Coding, that takes up less space in memory, with extension ".co".

A special Coding that takes up more space in memory, and with extension ".co * " .

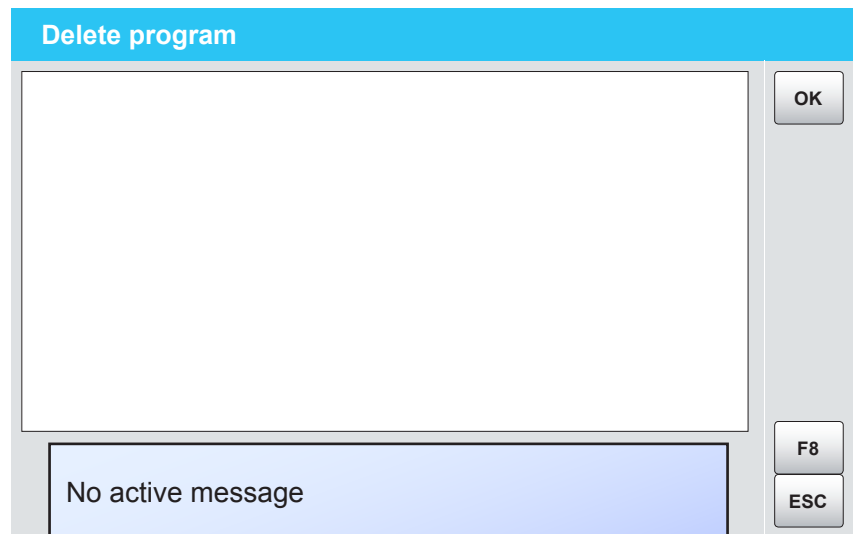
The peculiarities of this sock program ".co*" of codified type consists in the possibility to pull it out by the machine and through GRAPHITRON reconstruct the original not codified program (extension ".sok"), will also reported any changes made on board machine on the codified program.

It is therefore possible copy the codified program (including any changes) present in the machine (".co*") and recover the not codified program (".sok") manageable by GRAPHITRON.

The program codified in this mode (".co*") occupies more space in memory than normal.

In this page, a file with extension ".co*" indicates that the sock program is of this type (Special Coding).

Programs menu



Path to reach the window - From the Main window press:

Space-B-D ► **Delete program**

In this window are displayed all the files present in the machine RAM memory of any type they are (extension *.co, *.cn, *.cs).

This menu is used to erase files from the memory.

If the list exceeds the size of the window, a scroll bar appears.

**Select item.**

Touch to select (or de-select) the file.
Multiple items can be selected.
The file selected is crossed out.

**Cancellation of the selected File.**

After launching this command, a window appears as a confirmation of the execution.
This operation is only performed after the positive answer in the confirmation window.
Successful operation is confirmed by the message (Warning type):
Operation correctly finished

Management menu

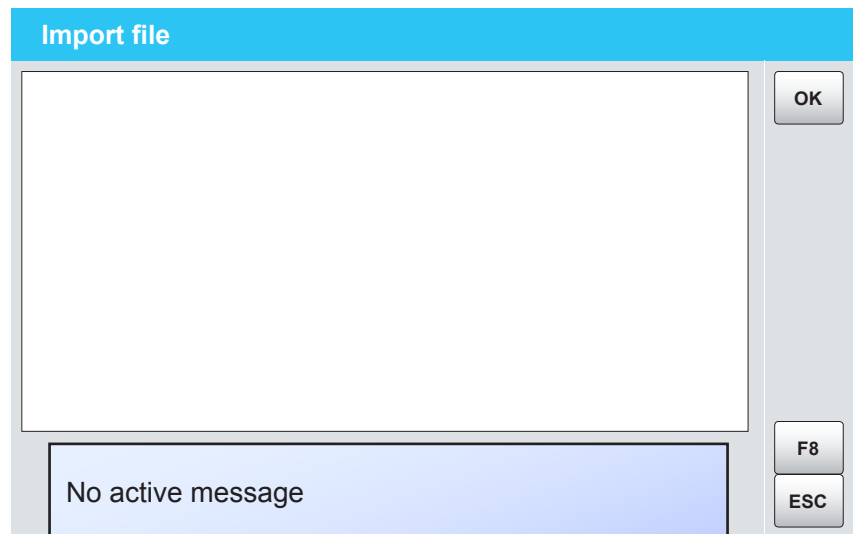
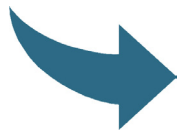


USB software management		
A	Import codified program	file *.CO - *.CN - *.CS
B	Export codified program	file *.CO - *.CN - *.CS
C	Import Setup	file *.XML
D	Export Setup	file *.XML
E	Import Extra Files	file *.UP
F	Export Extra File	file *.UP
G	Export Debug File	file *.LOG
H		
I	Clone machine on USB	
		ESC

Path to reach the window - From the Main window press:

Space-C ► **USB software management**

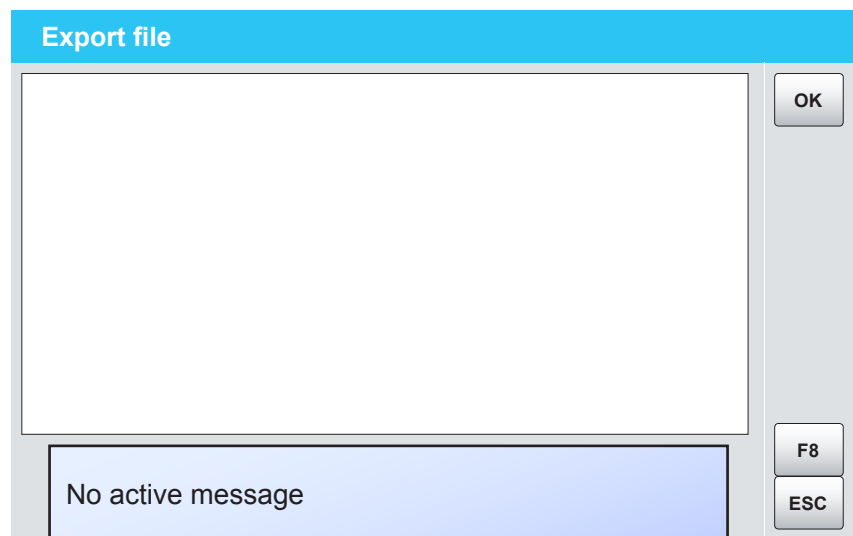
USB software management



Path to reach the window - From the Main window press:

Space-C-A ► **Import file**

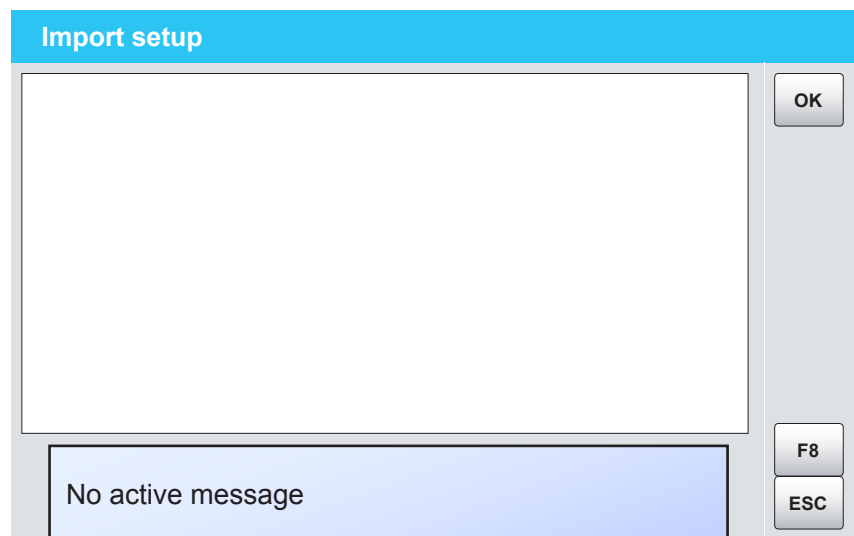
USB software management



Path to reach the window - From the Main window press:

Space-C-B ► **Export file**

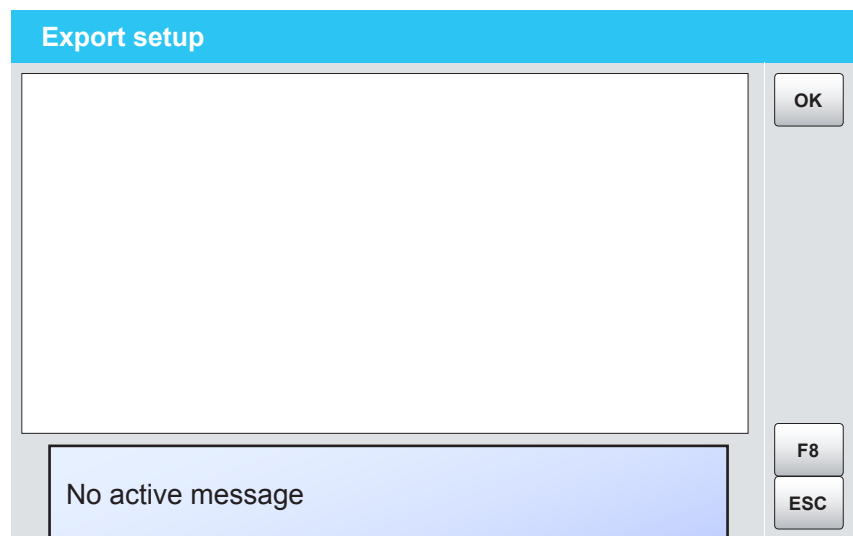
USB software management



Path to reach the window - From the Main window press:

Space-C-C ► **Import setup**

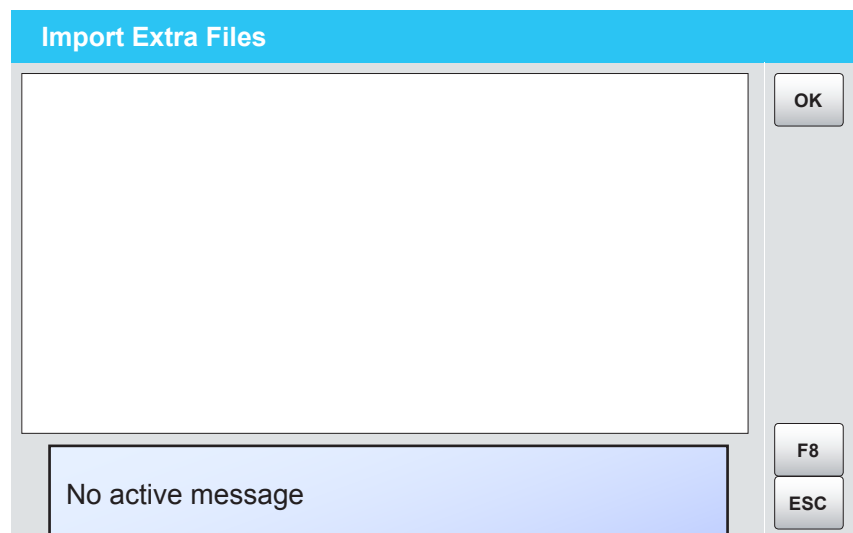
USB software management



Path to reach the window - From the Main window press:

Space-C-D ► **Export setup**

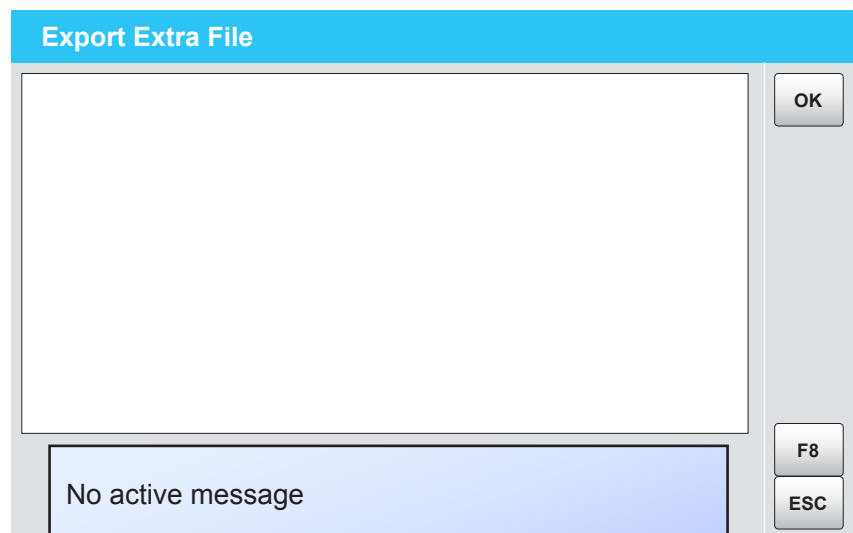
USB software management



Path to reach the window - From the Main window press:

Space-C-E ► **Import Extra Files**

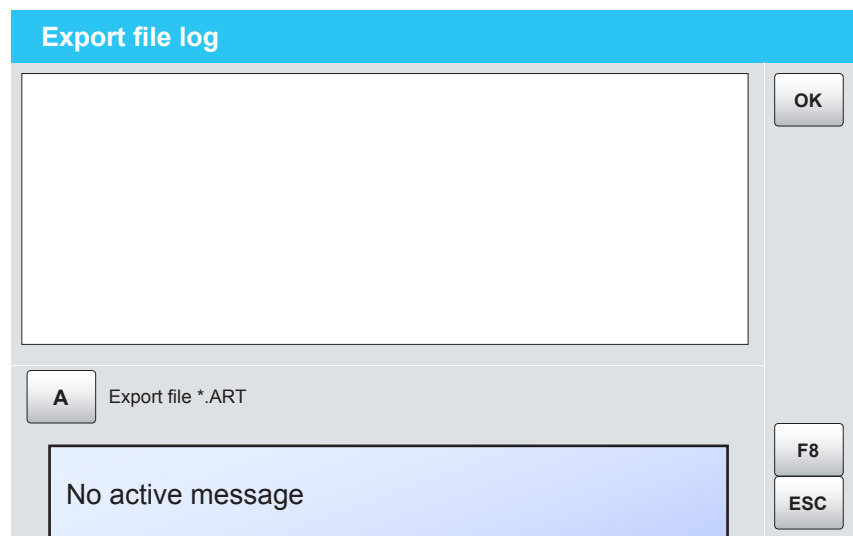
USB software management



Path to reach the window - From the Main window press:

Space-C-F ► **Export Extra File**

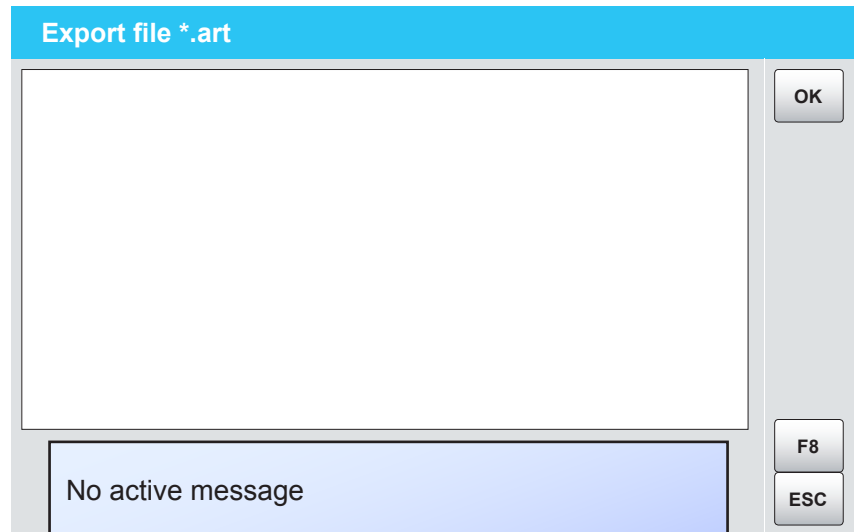
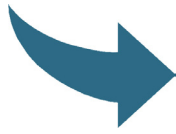
USB software management



Path to reach the window - From the Main window press:

Space-C-G ► **Export file log**

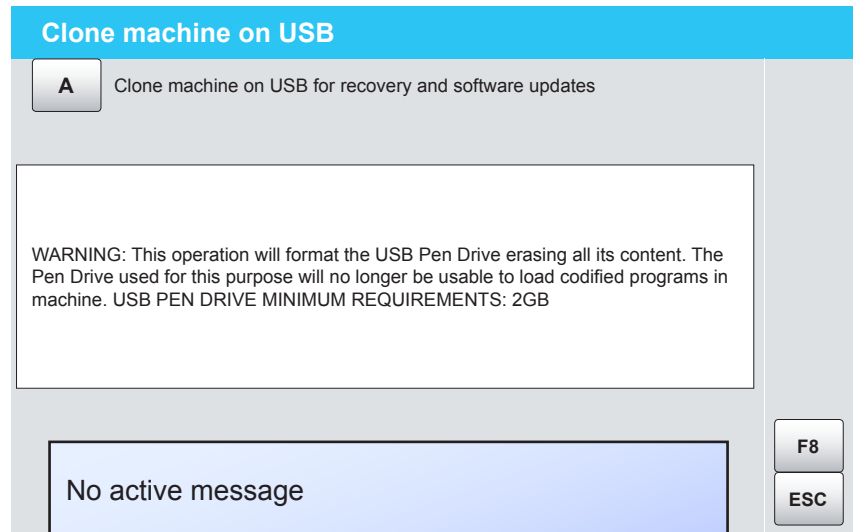
Export file log



Path to reach the window - From the Main window press:

Space-C-G-A ► **Export file *.art**

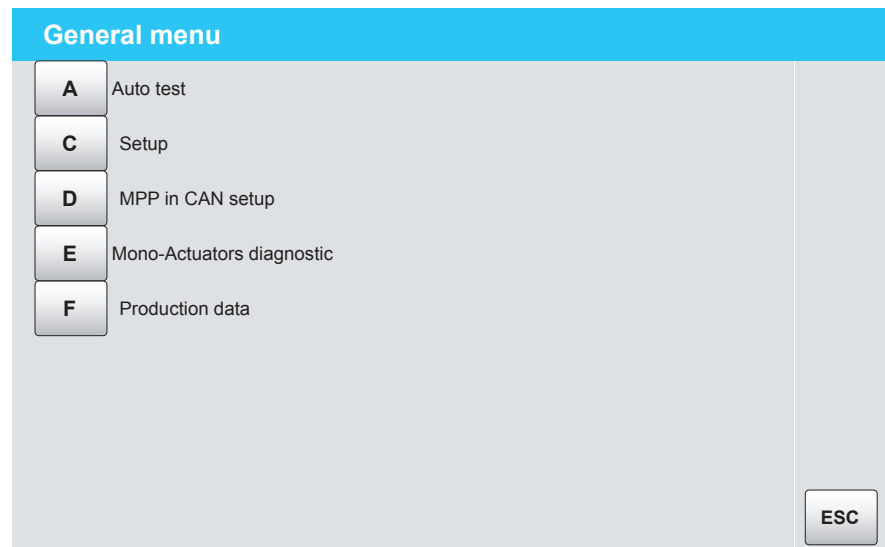
USB software management



Path to reach the window - From the Main window press:

Space-C-I ► **Clone machine on USB**

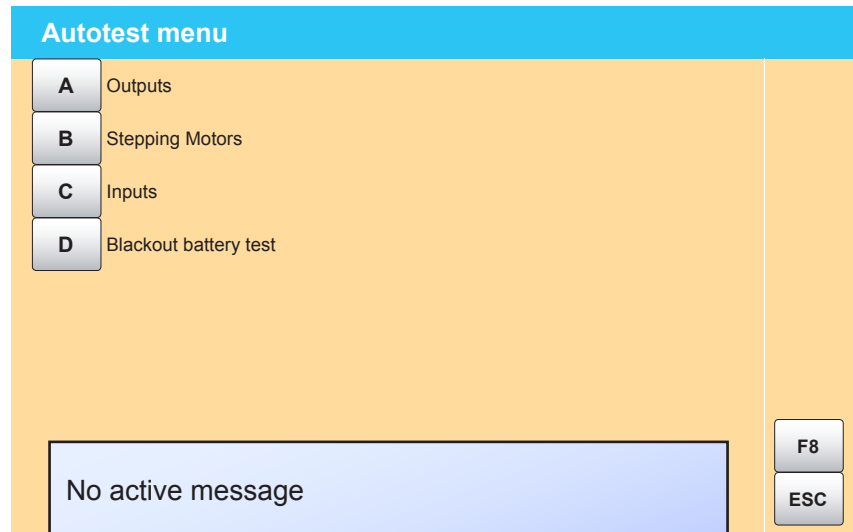
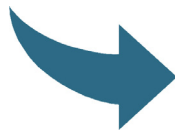
Management menu



Path to reach the window - From the Main window press:

Space-D ► **General menu**

General menu

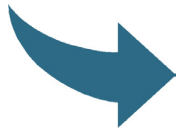


Path to reach the window - From the Main window press:

Space-D-A ► **Autotest menu**

This section contains the menus that can be used to check the inputs, outputs and operation of some devices.

Autotest menu






Path to reach the window - From the Main window press:

Space-D-A-A ► **Manual commands menu**

Manual commands menu




Autotest special functions		
F0	FN+F0	[1] Needles latch open
F1	FN+F1	
F2	FN+F2	
F3	FN+F3	
F4	FN+F4	[5] Rubber piston 1
F5	FN+F5	[6] Rubber piston 2
F6	FN+F6	
F7	FN+F7	
F8	FN+F8	[9] Elastic binder 1
F9	FN+F9	[10] Elastic binder 2



Path to reach the window - From the Main window press:


Space-D-A-A-A ► **Autotest special functions**


Manual commands menu



Autotest yarnfinger outputs

F0	FN+F0	EV yarnfinger 1 feed 1
F1	FN+F1	EV yarnfinger 2 feed 1
F2	FN+F2	EV yarnfinger 3 feed 1
F3	FN+F3	EV yarnfinger 4 feed 1
F4	FN+F4	EV yarnfinger 5 feed 1
F5	FN+F5	EV yarnfinger 6 feed 1
F6	FN+F6	EV Yarnfinger 7 feed 1
F7	FN+F7	EV Yarnfinger 8 feed 1
F8	FN+F8	
F9	FN+F9	





ESC

Path to reach the window - From the Main window press:

Space-D-A-A-B ► **Autotest yarnfinger outputs**

Manual commands menu



Autotest Cam			
F0	FN+F0	[1] Dial jacks enter 1	<div>↑</div> <div>↓</div> <div>ESC</div>
F1	FN+F1	[2] Dial jacks enter 2	
F2	FN+F2		
F3	FN+F3		
F4	FN+F4	[5] Dial jacks exit pos. 1	
F5	FN+F5	[6] Dial jacks exit pos. 2	
F6	FN+F6		
F7	FN+F7	[8] Return dial jack welt pattern phase	
F8	FN+F8		
F9	FN+F9	[10] Elastic select. Exclusion	

Path to reach the window - From the Main window press:

Space-D-A-A-C ► **Autotest Cam**

Manual commands menu



Autotest levers

DRUM 1

F0	FN+F0	Lever 1
F1	FN+F1	Lever 2
F2	FN+F2	Lever 3
F3	FN+F3	Lever 4
F4	FN+F4	Lever 5
F5	FN+F5	Lever 6
F6	FN+F6	Lever 7
F7	FN+F7	Lever 8

T

Shake

0

msec.

+

-

ESC

Path to reach the window - From the Main window press:

Space-D-A-A-D ► **Autotest levers**

This menu covers several pages.

The page sequence is cyclical.

In this window it's possible to check the movement of "Pattern drums" through the direct execution of some commands.

It's possible to move the levers of the electronic "Pattern drums" up and down ("lever high" and "lever low") simulating the movement of the pattern.

Furthermore ...

The command controlling all the levers is available.

See also ...

Please refer to point:

[Main Window](#)

10) .

Manual commands menu

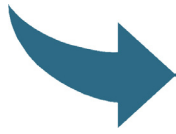


Autotest various outputs				
F0	FN+F0	Function 3 oil pump	X	
F1	FN+F1	Function 5 sock ejection		
F2	FN+F2			
F3	FN+F3	EV Crank block	X	
F4	FN+F4	Basket 1 changeover command		
F5	FN+F5	Basket 2 changeover command		
F6	FN+F6	E-CS1 Command basket 1 changeover		↑
F7	FN+F7	E-CS2 Command basket 2 changeover		↓
F8	FN+F8	EV fan contactor		
F9	FN+F9	Nautilus sock deviator		ESC

Path to reach the window - From the Main window press:

Space-D-A-A-E ► **Autotest various outputs**

Manual commands menu

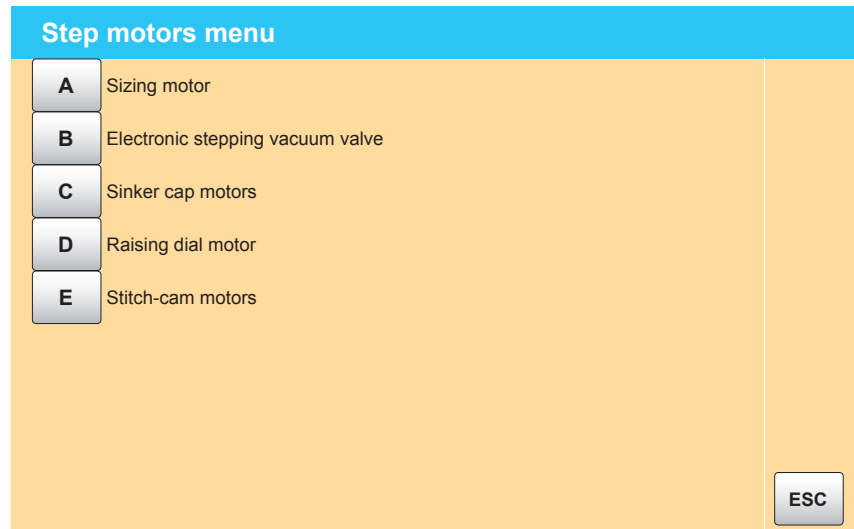
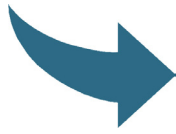


Autotest outputs closed toe					
F0	FN+F0	Eprc50 Cylinder stop piston	X		
F1	FN+F1	Eprc52 Turned sock pushing blow			
F2	FN+F2	Eprc53 Close Toe dial lowering			
F3	FN+F3	Eprc1 Pin holder unit rot. lever.	X		
F4	FN+F4	Eprc2 Pin holder support			
F5	FN+F5	Eprc3 Pin holder knit pusher	X		
F6	FN+F6	Eprc4 Turning piston up - UP	X		↑
F7	FN+F7	Eprc5 Turning Piston up - DOWN	X		↓
F8	FN+F8	Eprc6 Sock stretching sector	X	X	
F9	FN+F9				ESC

Path to reach the window - From the Main window press:

Space-D-A-A-F ► **Autotest outputs closed toe**

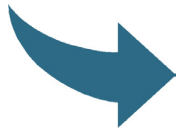
Autotest menu



Path to reach the window - From the Main window press:

Space-D-A-B ► **Step motors menu**


Step motors menu



Autotest MPP

Sizing motor

F0	Forward	F5	
F1	Backward	F6	
F2	Reset	F7	
F3	Course end	F8	
F4		F9	No limit

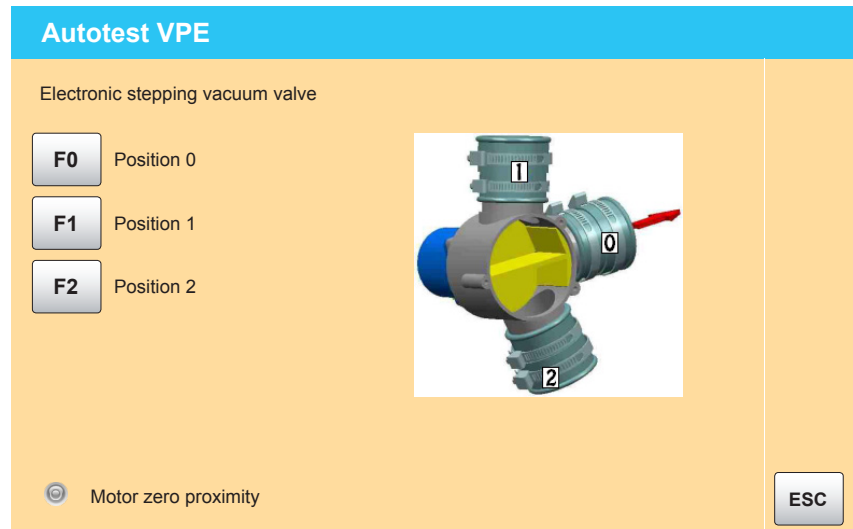
 Motor zero proximity

ESC

Path to reach the window - From the Main window press:

Space-D-A-B-A ► Autotest MPP

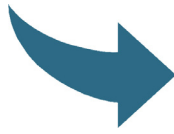
Step motors menu



Path to reach the window - From the Main window press:

Space-D-A-B-B ► **Autotest VPE**

Step motors menu



Autotest sinker cap

Sinkers cap

F0	Forward	F5	
F1	Backward	F6	
F2	Reset	F7	
F3	Course end	F8	
F4		F9	No limit

☒ Motor zero proximity

↑

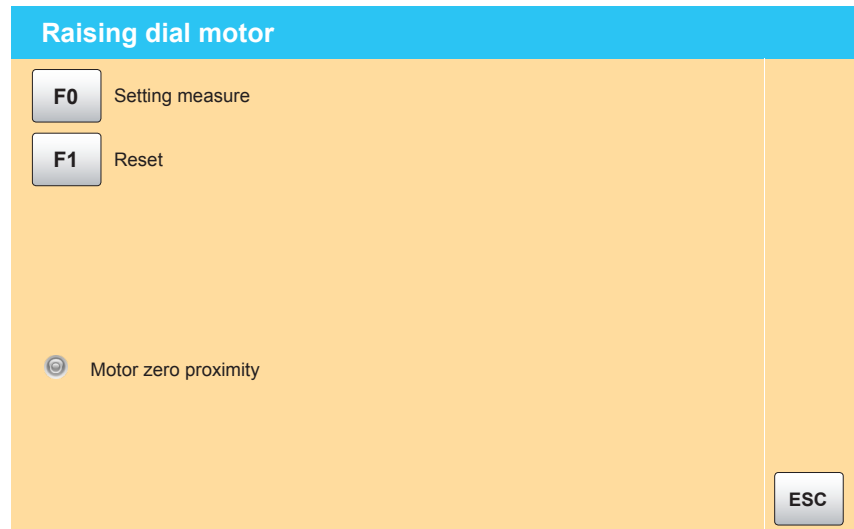
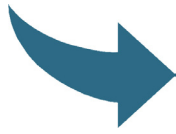
↓

ESC

Path to reach the window - From the Main window press:

Space-D-A-B-C ► **Autotest sinker cap**

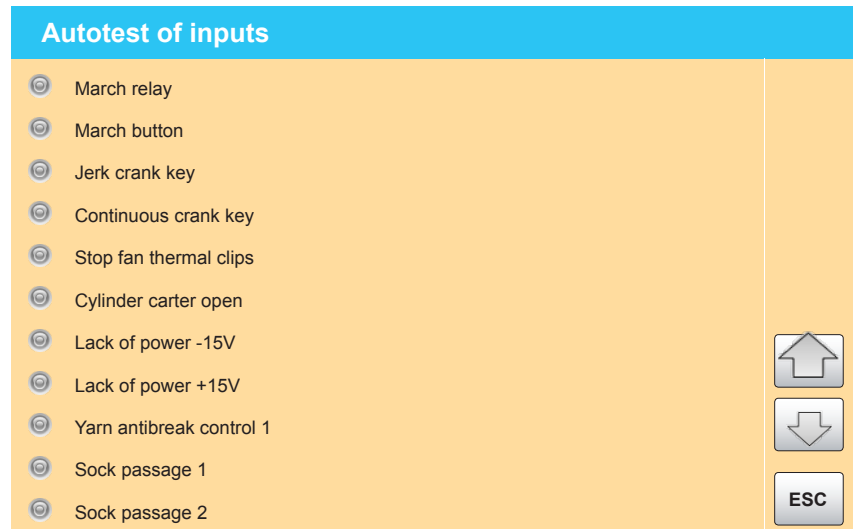
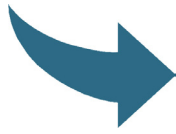
Step motors menu



Path to reach the window - From the Main window press:

Space-D-A-B-D ► **Raising dial motor**

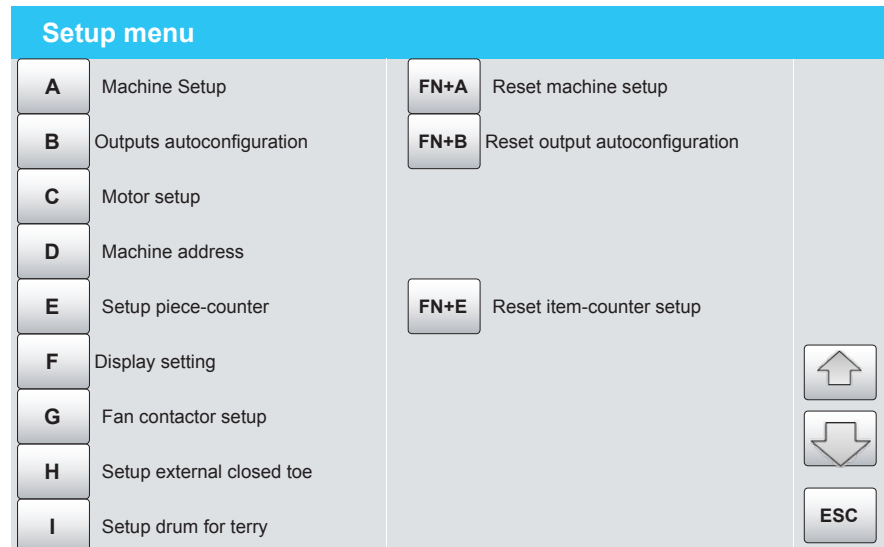
Autotest menu



Path to reach the window - From the Main window press:

Space-D-A-C ► **Autotest of inputs**

General menu



Path to reach the window - From the Main window press:

Space-D-C ► **Setup menu**

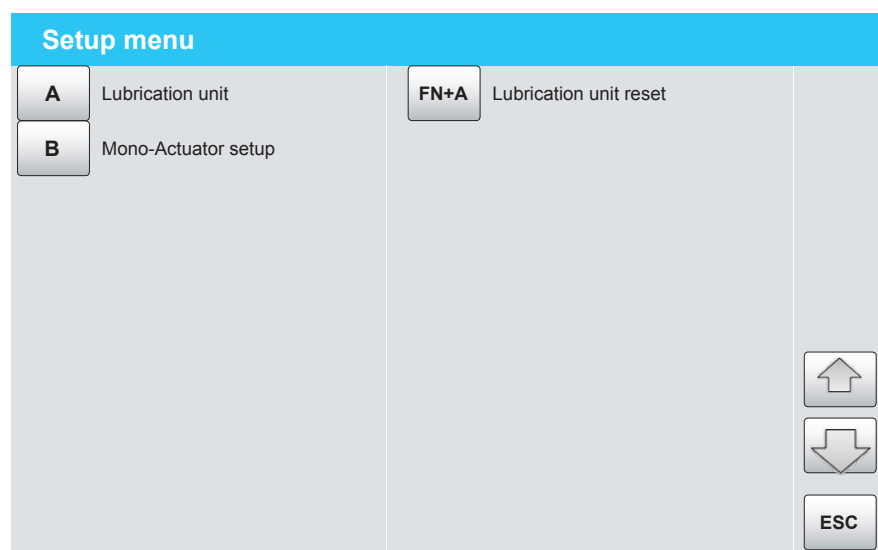
This menu covers several pages.

The page sequence is cyclical.

The machine software has standard settings that must be personalised according to the model, equipment and work habits.

In this window are available the "configuration menu" of the main Setup (constructive data, test data, user configuration data, etc.) accessible directly or through the various sub-menus.

To view how the section is structured, see the contents and/or enable the Bookmark view by opening the PDF file.



[A] Machine Setup

In this menu you can (for instance):

- Set the "Needles number" of the machine cylinder.
- Set the "Cylinder diameter" of the machine.

Furthermore:

This menu allows the following operations:

- Enabling of the maintenance of the Stitch values in the case of activation of different Size in the active program.
- Enabling of the Stitch modify for each associated block.

Et cetera . . .

[B] Outputs autoconfiguration

In this window you can set the Amount and Number of "Serial Output boards" (bars) assembled on the machine.

From this menu you can launch the following operation:

Outputs autoconfiguration

This procedure is used to store the solenoid valve layout for enabled bars.

This operation determines the "Acquisition" of the "Serial Input/Output" present on the machine.

[C] Motor setup

Access the menu of viewing and editing accelerations (ramps) used in the machine functioning (cylinder rotation) in the various conditions.

Access to the menu for the "Mechanical zero acquisition" and "Resolver adjustment".

[D] Machine address / IP adress setup

Thanks to the menus, the network address is given to the serial number.

The code identifies the machine.

[E] Setup piece-counter / Single-item-counter setting

This menu allows the following operations:

- Setting the behaviour of the "OUT-COUNTER" lamp (Light on or Flashing) when the production Target is reached.
- Enable/ Disable the management of the following function: Sock passage control

Furthermore:

In this window you can set the time that remains active the "Basket change" command (Solenoid valve) when it intervenes.

In this window is possible to Enable, or Disable, a different procedure for the Sock-counter zeroing when is activated a new Sock Program (file ".co").

[F] Display setting

In this window are available some "functions" or "configuration menu" on the "Language used", "Display contrast", and time of Display lamp Switching off (for the increase of the remaining life).

[G] Fan contactor setup

In this window is possible to Enable, or Disable, the functioning of the Suction Fan.

[H] Setup external closed toe

Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

This menu allows the following operations: **Enabling/ Disabling of the device.**

Furthermore ... The menu contains device control options.

From this menu you can launch the following operation:

- Calibrature reset and/ or General data reset

Remember that:

The disabled device is not handled even when it is connected.

Therefore: The controls (and/or operations) specified are active only when the device is enabled.

The information provided applies to the following models: Stitch-by-stitch models.

This type is also called: External Closed Toe.

[H] Setup external closed toe

Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

This menu allows the following operations: **Enabling/ Disabling of the device.**

Furthermore ... The menu contains device control options.

From this menu you can launch the following operation:

- Calibration reset and/ or General data reset

Remember that:

The disabled device is not handled even when it is connected.

Therefore: The controls (and/or operations) specified are active only when the device is enabled.

The information provided applies to the following models: Stitch-by-stitch models.

This type is also called: External Closed Toe.

Operating commands

[FN] + [A] - Reset machine setup

By pressing these keys is performed the complet Reset of the Setup.

Procedure

When asked for a reset, the user must confirm the operation ("Yes" = [Y], "No" = [N]), in the event of an affirmative reply a message of "procedure in progress" appears, and after a few seconds a warning message informs the user that the Reset was implemented correctly.

The data are removed from FLASH memory.

The user must turn off the machine (is displayed an alarm).

When turns on the machine will have to be configured again the Setup, after which the machine will be available to the user.

This "Reset" procedure can be required by the Lonati technical staff, for example in case the attempt of resolution of some specific problems.

[FN] + [B] - Reset output autoconfiguration

Serial I/O reset

With an error message active, Serial Output Reset is possible.

The machine must be with program at zero.

This function can only be used when a Serial Output Reset is actually required, e.g. after elimination of solenoid valve or an I/O serial line fault resolution procedure is implemented.

[FN] + [E] - Reset item-counter setup

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

Setup menu



Machine setup

A	General data	OK
B	Dedicated devices	
C	Setup Stepping Motors	
D	Type of data collection	
E	Management	
F	Setup elastic motors	

No active message

F8
ESC

Path to reach the window - From the Main window press:

Space-D-C-A ► Machine setup

Operating commands

[Return] / (OK)

SAVE DATA

This command is used to save the values defined in the menu. (submenu) .

Wait for the message that indicates completion of the operation.

MESSAGES

Wait for the message: 19.1 Setup saving completed

NOTE

The data are directly saved in the FLASH memory and become part of the "General Setup", and will not be lost.

This menu can be used to review the settings in the event of software updating.

Therefore:

You must set this menu (submenu) when the Setup is lost (in event of Software update, or main logic board replacement).

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

[A] General data

This menu allows the following operations:

- Set the "Needles number" of the machine cylinder.
- Set the "Cylinder diameter" of the machine.

[B] Dedicated devices

Access the Setup menu on specific settings for the machine model.

[C] Setup Stepping Motors

This section covers the motor operating settings that determine the knit width.

From this menu, you can activate or deactivate control of the devices specified. (Stepping Motors)

- From this menu you can choose the unit of measurement (cm or inch) for expressing knit width.
- In this window can be selected the "operation mode" provided for the "Sizing" motor.

Furthermore:

This menu allows the following operations:

- Enabling of the maintenance of the Stitch values in the case of activation of different Size in the active program.
- Enabling of the Stitch modify for each associated block.
- Setting of the modify of "Stitch/Size with the Temperature", according to "gradual tables" preloaded in the Software.

[E] Management

This section contains the menus that provide alternatives to machine management and status.

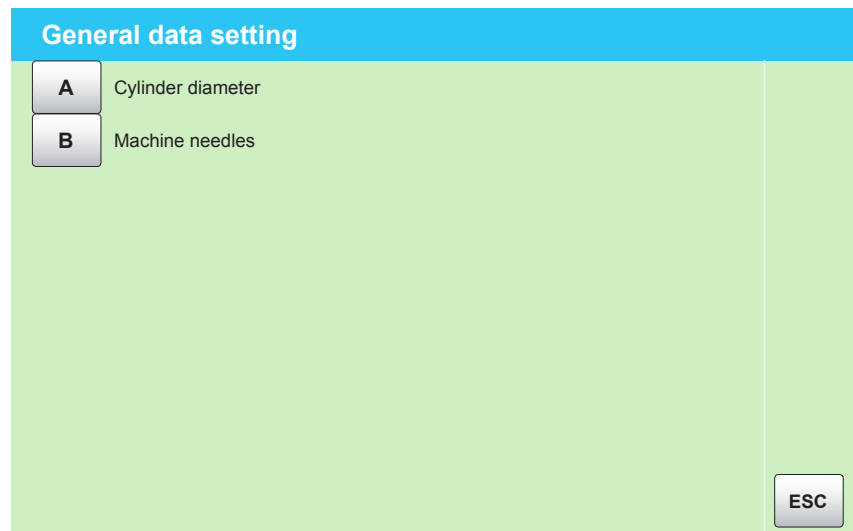
This section includes the menus via which you can select machine behaviour and status options required to operate certain functions or window.

[F] Setup elastic motors

This menu allows the following operations:

- Setting of the Type and Modality of operation of the PYF motors assembled on the machine.
- Access to the window for "Enabling/Disabling" Elastic/PYF motors.
- Access to the "configuration menu" concerning the "Rotation direction" of the "PYF motors".

Machine setup



Path to reach the window - From the Main window press:

Space-D-C-A-A ► **General data setting**

This is a window for the transition to other menu.

Navigating

[A] Cylinder diameter

This menu allows the following operations:

- Set the "Cylinder diameter" of the machine.

[B] Machine needles

This menu allows the following operations:

- Set the "Needles number" of the machine cylinder.

[Esc] Return to previous menu

Exit from the window and return to previous page.

General data setting



Diameter setup

Cylinder diameter

<input type="checkbox"/> A	Ø 3" 3/4
<input type="checkbox"/> B	Ø 3" 1/2
<input type="checkbox"/> C	Ø 3" 1/4
<input type="checkbox"/> D	Ø 4"

ESC

Path to reach the window - From the Main window press:

Space-D-C-A-A-A ► **Diameter setup**

In this window you can set the "Cylinder diameter" of the machine. This window shows the possible options for the model.

The "Machine cylinder diameter" is a constructive data, is set during the assembly cycle, and shall be modified only in case of a change of the machine cylinder with one having a diameter different.

You must set this data even when the Setup is lost in event of Software update, or Logic board replacement.

Settings

Selection

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

[A] / [B] / etc. Press the key corresponding to the value you wish to enter, as shown on the menu.

Current status of the Setup data.

The value selected will be displayed with a tick.



Further information is available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#)

General data setting



Machine needles setup

Needles number:

Path to reach the window - From the Main window press:

Space-D-C-A-A-B ► **Machine needles setup**

In this window you can set the "Needles number" of the machine cylinder.

You must set this data even when the Setup is lost in event of Software update, or Logic board replacement.

The user is required to check the "Number of needles" set in the Setup and compare it with that shown in the machine identification plate.

The "Machine needles number" is a constructive data, is set during the assembly cycle, and shall be modified only in case of a change of the machine cylinder with one having a number of needles different.

Parameters

There is only a field where to record the modification.

When you enter the window the current parameter value is shown.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

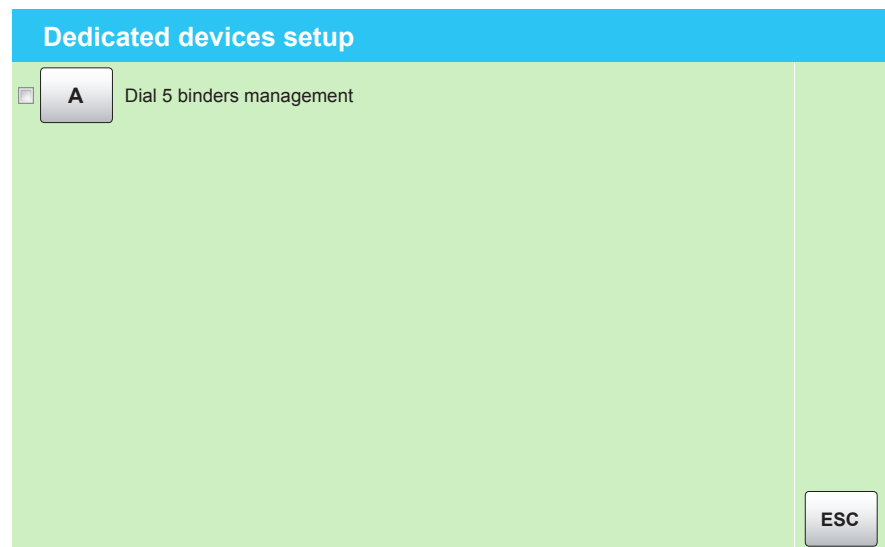


Needles number:

Insertion area for the values of the new Setup data.

Access by pressing [Ent].

Machine setup



Path to reach the window - From the Main window press:

Space-D-C-A-B ► **Dedicated devices setup**

The information provided applies to the following models:

GL544 , GK544 , GL544CTE , GK544CTE .

This item is specific for the models equipped with: **Dial 5 binders**

This is an optional device.

The devices present must be enabled and those missing must be disabled.

If a non-present device is enabled, the machine generates errors.

The disabled device is not handled even when it is connected.

Enabling

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

[A] / [B] / etc. Press the key corresponding to the value you wish to enter, as shown on the menu.

Current status of the Setup data.

The value selected will be displayed with a tick.



Machine setup



Path to reach the window - From the Main window press:

Space-D-C-A-C ► **Rest setup**

This is a window for the transition to other menu.

This section covers the motor operating settings that determine the knit width.

[A] Enable motors

From this menu, you can activate or deactivate control of the devices specified. (Stepping Motors)

[B] All sizes

This window is used to select whether a Stitch/Size modification which has taken place during sock processing is to be repeated or otherwise on all other Sizes of the same sock.

[C] Zones association

This window is used to select that any alteration to a particular Stitch/Size in a precise "Block" (Zone) of the sock is repeated proportionally on all other "Associated" blocks.

[Esc] Return to previous menu

Exit from the window and return to previous page.

Rest setup



Rest enabling setup					
<input type="checkbox"/>	A	VPE	<input type="checkbox"/>	L	Stitch-cam 3
<input type="checkbox"/>	B	Sizing motor	<input type="checkbox"/>	M	Stitch-cam 4
<input type="checkbox"/>	C	Sinkers cap			
<input type="checkbox"/>	D	Sinker cap position			
<input type="checkbox"/>	E	Dial raiser			
<input type="checkbox"/>	F	Saw			
<input type="checkbox"/>	G	Heel and toe stitch cam			
<input type="checkbox"/>	H	Stitch-cam 1			
<input type="checkbox"/>	I	Stitch-cam 2			
					ESC

Path to reach the window - From the Main window press:

Space-D-C-A-C-A ► Rest enabling setup

From this menu, you can activate or deactivate control of the devices specified. (Stepping Motors)
Personalise this menu according to the machine actual outfit.
The devices present must be enabled and those missing must be disabled.
If a non-present device is enabled, the machine generates errors.

Disabling can be useful to check the hypothesis of faulty device.
If when disabling a device, the errors disappear, it means that device was the source of the malfunction.

[B] Sizing motor

The specified device activates or deactivates from the menu. (Sizing motor)

This section contains the menus that provide alternatives to management.

In particular: **Units of measure size INCH**

[B] Sizing motor

The specified device activates or deactivates from the menu. (Sizing motor)

This section contains the menus that provide alternatives to management.

In particular: **Units of measure size INCH**

[F] Saw

The specified device activates or deactivates from the menu. (Saw blade motor)

This section contains the menus that provide alternatives to management.

In particular: **Stop saw device** (Saw blade release)

[E] Dial raiser

This section contains the menus that provide alternatives to management.

In particular:

- Dial step setting enabling
- Dial protection by blocks

Enabling

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

In this window is possible to Enable, or Disable, the management of motors.

The window is the same for all models of machine.

The maximum number of motors available depends on the model of machine.

The DEFAULT configuration determined by software on the Enabling of "Stepping motors" is :
"without optional motors".

[A] **VPE** (Electronic stepping vacuum valve)

[C] **Sinkers cap**

[D] **Sinker cap position**

[G] **Heel and toe stitch cam**

[H], [I], [L], [M] **Stitch-cam N**

Rest enabling setup



Set cylinder-raising motor

☐ **A** Enable motor

☐ **B** Units of measure size INCH

Motor piloting type setup

☐ **C** Normal

☐ **D** Ramped

Cylinder raising motor relative zero

0

(0-300) Steps

ENT

-

+

ESC

Path to reach the window - From the Main window press:

Space-D-C-A-C-A-B ► **Set cylinder-raising motor**

The specified device activates or deactivates from the menu. (Sizing motor)

Furthermore:

- In this window can be selected the "operation mode" provided for the motor.
- This window can be used to set the "Offset" value (in motor "steps") to be added to the value set from Sock Program from the various movements of the "Raising Cylinder" motor.

Settings

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Enabling

In this window is possible to Enable, or Disable, the management of the motor.

[A] Enable motor

For basic information, refer to: Rest enabling setup

[B] Units of measure size INCH

Value of the set knit Width.

With management enabled: The value is expressed in inches.

With management disabled: The value is expressed in cm.

Selection

Motor piloting type setup

This window offers a 2 option choice.

The choice of the "High speed" mode determines an acceleration of the movement of the "Sizing motor", then a Stitch variation faster.

This may be useful if a sock program provides Stitch changes very fast (i.e. in a few courses).

In fact greater speed of motor movement can eliminate textiles defects, for example in "Entry of the Heel", the "row effect" (different Stiches) in point of the "Foot" opposite the "Heel".

[C] Normal

By pressing this [Letter] is set as indicated this Setup function.

The other options are automatically excluded.

[D] Ramped

By pressing this [Letter] is set as indicated this Setup function.

The other options are automatically excluded.

Parameters

When you enter the window the current parameter value is shown.

Cylinder raising motor relative zero

Insertion area for the values of the new Setup data.

The value is expressed as motor steps.

Access by pressing [Ent]. In particular, refer to the paragraph: **Operating commands**

This window can be used to set the "Offset" value (in motor "steps") to be added to the value set from Sock Program from the various movements of the "Raising Cylinder" motor.

The only value that remains the same as the Program set value is "zero", to all the others, the motor "steps" provided by this "Offset" are added.

This Setup function has been created when the production of new machine models commenced, where, among other things, the Cylinder Raiser adjusting mechanism was modified.

With the same values set in the Sock Program, the old models and the new ones differ in that the Raising Cylinder reached a different position.

This function therefore allows use of the same Sock Programs on old and new machine models.

The expected DEFAULT value for this parameter causes the real value reached by the Cylinder Raiser between previous and current machine models coincide.

The user can modify this value according to each individual machine.

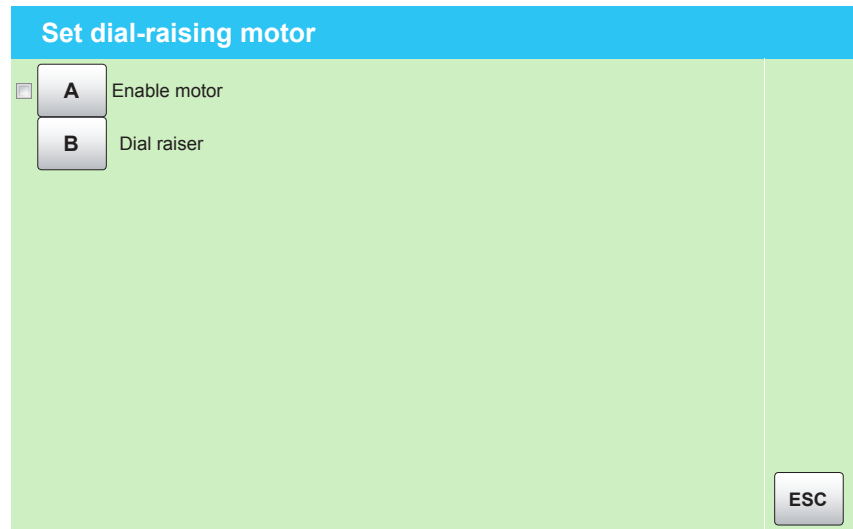
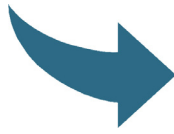
In this way the Knit widths will be the same on all the machines, without requiring any Program corrections.

Operating commands

[+] / [-] The control increments the parameter. / The command decrements the parameter.

The minimum variation is: 1 units.

Rest enabling setup



Path to reach the window - From the Main window press:

Space-D-C-A-C-A-E ► **Set dial-raising motor**

The specified device activates or deactivates from the menu. (Raising dial motor)

This function must be disabled when it is not available the hardware (command board) on this specific motor.

Deactivate the motor for the models without a motor.

In this menu is available the windows configuration (submenu) concerning ...

- Dial step setting enabling
- Dial protection by blocks

Settings

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

Enabling

Select with the special letter the setting you want.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

A

Enable motor

First consult the information contained at the start of the section.
Concerning this see the menu:

[Set cylinder-raising motor](#)

Navigating

[E] Dial raiser

This section contains the menus that provide alternatives to management.
In particular:

- Dial step setting enabling
- Dial protection by blocks

Set dial-raising motor



Motorized welt raiser setup

<input type="checkbox"/>	A	Dial step setting enabling	OK
<input type="checkbox"/>	B	Dial protection by blocks	

No active message

F8
ESC

Path to reach the window - From the Main window press:

Space-D-C-A-C-A-E-B ► **Motorized welt raiser setup**

This menu is used to choose how to access the modify menu for the Dial movements.

Furthermore:

The keys controlling the movement of the mechanical unit can be disabled in the event of hazardous situations.

The situation is critical each time dial jacks project during operation.

When protection is enabled, the user is not allowed to raise the Welt mechanical unit in the "cuff" and "toe" zones.

In this way, there is no risk for the dial jacks to accidentally come against the ring.

Enabling



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

-

Operating commands

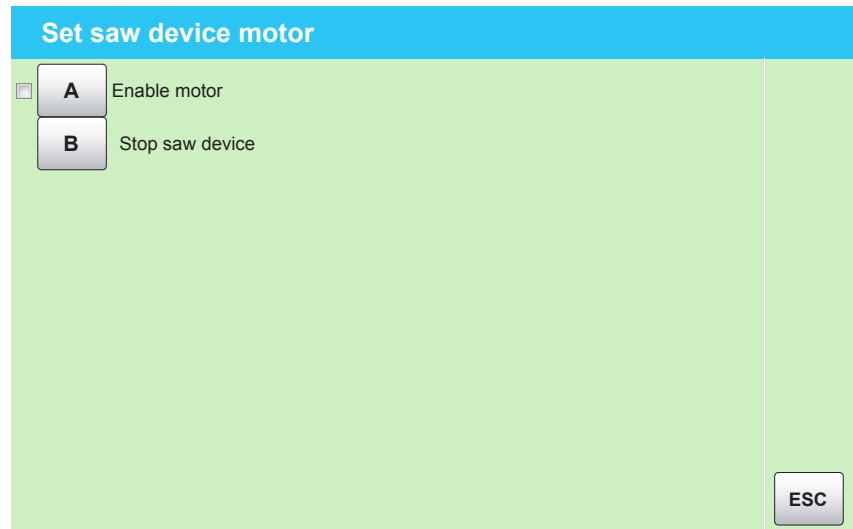
[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.

Rest enabling setup



Path to reach the window - From the Main window press:

Space-D-C-A-C-A-F ► **Set saw device motor**

This menu is used to choose how to access the modify menu for the Dial movements.

Furthermore:

The keys controlling the movement of the mechanical unit can be disabled in the event of hazardous situations.

The situation is critical each time dial jacks project during operation.

When protection is enabled, the user is not allowed to raise the Welt mechanical unit in the "cuff" and "toe" zones.

In this way, there is no risk for the dial jacks to accidentally come against the ring.

Settings

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.

Enabling

Select with the special letter the setting you want.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

A

Enable motor

First consult the information contained at the start of the section.
Concerning this see the menu:

[Set cylinder-raising motor](#)

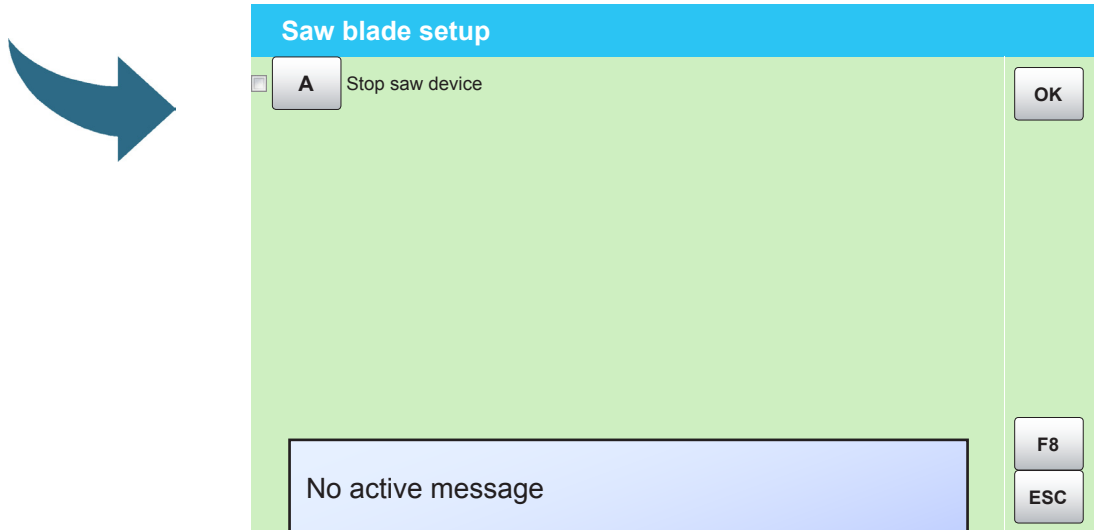
Navigating

B

Set saw device motor

In this window is possible to [Enable] or [Disable] the operation of the "Stop Saw device", that is always present on the machine.

Set saw device motor



Path to reach the window - From the Main window press:

Space-D-C-A-C-A-F-B ► **Saw blade setup**

In this window is possible to [Enable] or [Disable] the operation of the "Stop Saw device", that is always present on the machine.
For security reasons this device must always be operational ("Enabled") in order to stop the Saw rotation in dangerous situations for the user.
The DEFAULT condition is "Enabled".

Note - For the latest software versions

This menu has been deleted.
Therefore: The device cannot be disabled.
This is for safety reasons.

Settings

Press **[Return]** / **(OK)** to confirm the settings and then return to previous window.
Wait until data saving has finished.

Enabling

Select with the special letter the setting you want.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Enabling/Disabling of the "Stop saw" device.

[A] Stop saw device (Saw blade release)

For further information see also: Rest enabling setup

Operating commands

[Return] / **(OK)** Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Rest setup



All-sizes modification enabling setup

<input type="checkbox"/>	A	Sizing motor
<input type="checkbox"/>	B	Sinkers cap
<input type="checkbox"/>	C	Sinker cap position

ESC

Path to reach the window - From the Main window press:

Space-D-C-A-C-B ► **All-sizes modification enabling setup**

This window is used to select whether a Stitch/Size modification which has taken place during sock processing is to be repeated or otherwise on all other Sizes of the same sock.

Enabling

Select with the special letter the setting you want.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Do you want to apply the modification to other sizes?

This window is used to select whether modification which has taken place during sock processing is to be repeated or otherwise on all other Sizes of the same sock.

The modifications affects in proportion the associated zones of all the sizes.

The sizes must be defined via the Graphitron during item formation.

[A] Sizing motor

Setting "Enabled" causes the modification to be repeated on all Sizes.

[B] Sinkers cap

Setting "Enabled" causes the modification to be repeated on all Sizes.

[C] Sinker cap position

Setting "Enabled" causes the modification to be repeated on all Sizes.

Rest setup



Associated-zones modification enabling setup

<input type="checkbox"/>	A	Sizing motor
<input type="checkbox"/>	B	Sinkers cap
<input type="checkbox"/>	C	Sinker cap position

ESC

Path to reach the window - From the Main window press:

Space-D-C-A-C-C ► **Associated-zones modification enabling setup**

This window is used to select that any alteration to a particular Stitch/Size in a precise "Block" of the sock is repeated proportionally on all other "Associated" blocks.

This "Association" is created through appropriate programming by GRAPHITRON.

During article programming, the zones are associated by assigning them a same letter.

A code is used to associate blocks" chosen to be modified together.

By setting "Enabled" this management is active.

Settings

Enabling

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Is the zone association to be considered or ignored?

[A] Sizing motor

With management disabled each area is separate: the association of the zones is ignored.

[B] Sinkers cap

With management disabled each area is separate: the association of the zones is ignored.

[C] Sinker cap position

With management disabled each area is separate: the association of the zones is ignored.

[Esc] Return to previous menu

Exit from the window and return to previous page.

Notice

Note



We must take this for example, if a size modification is envisaged during the same sock on 2 "Blocks" which are associated, the operator only has to modify one Zone; this will consequently modify all "Blocks" which are associated.

Machine setup



Typical data collection setup

Data collection enabled

<input type="checkbox"/> A	None
<input type="checkbox"/> B	Nautilus
<input type="checkbox"/> C	Dcn2000
<input type="checkbox"/> D	Dcn2000-Mosy

SmartNet

<input type="checkbox"/> E	Enable SmartNet
<input type="checkbox"/> F	Coupling

ESC

Path to reach the window

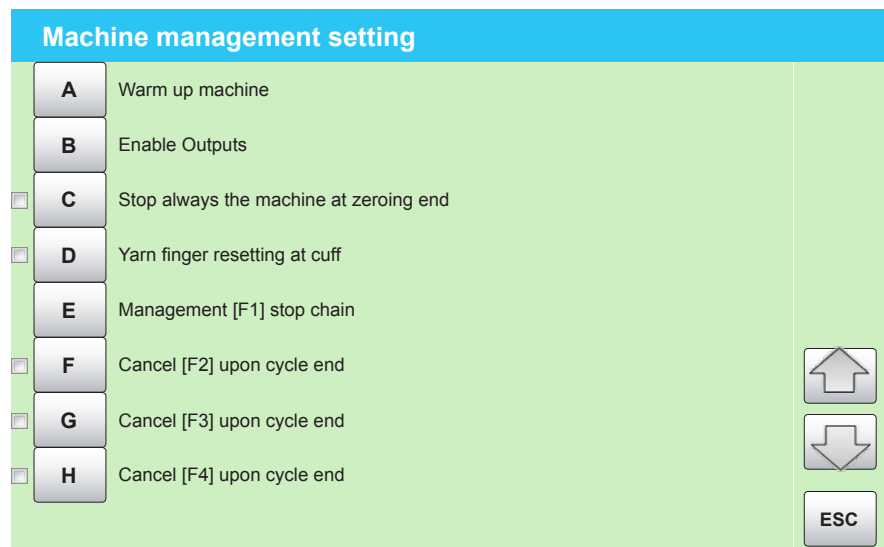
Space-D-C-A-D ► **Typical data collection setup**

This section refers to the telematic network.
The network and its management is supplied by Dinema S.p.A.
The specific icon appears according to the type selected.
Concerning this see the menu:
Please refer to point:

Main Window

7c) .

Machine setup



Page 1

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E ► **Machine management setting**

This section contains the menus that provide alternatives to machine management and status. This section includes the menus via which you can select machine behaviour and status options required to operate certain functions or window.

This menu covers several pages.

The page sequence is cyclical.

Navigating

A
Warm up machine

After how many socks produced do you consider the machine warm? And after how long of inactivity, do you consider it cold?

This window can be used to fix the heating and cooling times.

B
Inputs setup

Via the menu, it is possible to enable/disable certain specific inputs.

The disabled device is not handled even when it is connected.

E
Setup stop chain [F1]

In this menu you can set operation for the following function:

[F1] (Chain step stop.).

Enable function after reset? How long shall [F1] be kept activated?

Settings

Enabling
C
Stop always the machine at zeroing end

Concerning this see the menu:

In particular:

(**Machine reset.**)

Main Window

[F0] Program reset, mechanical reset.

The Zeroing of the machine after pressing the [F0] key is begun.

With management enabled:

After zeroing ... (at end of cycle) The machine stops. **Always**

With management disabled:

The machine will perform all the resets, after which it will start the next sock cycle, unless keys F1 or F3 are active.

See also the menu:

Setup stop chain [F1]

D

Yarn finger resetting at cuff

During the "cuff" stage all the yarn fingers generally disengage, except those in feed 1. For some types of production, it is safer to disengage them at once as well.

When making a cuff with one yarn only and it breaks, the latches might remain open. When resetting under this condition, the latches may hit the yarn finger.

Therefore:

In the "cuff" stage, should the feed 1 yarn fingers be raised immediately for resetting?

With management enabled:

Yes

During machine resetting, the yarn fingers of all the feeds exit the work mode.

With management disabled:

With management disabled, machine behaviour is standard.

F

Cancel [F2] upon cycle end

Concerning this see the menu:

In particular:

Main Window

[F2] Mini cycle (No economizations)

With management enabled:

The key will disable automatically at the end of cycle.

With management disabled:

No check is performed.

Press this key again to deactivate this function.

G

Cancel [F3] upon cycle end

Concerning this see the menu:

In particular:

Main Window

[F3] Machine stop at end of cycle

See previous page for more details.

H

Cancel [F4] upon cycle end

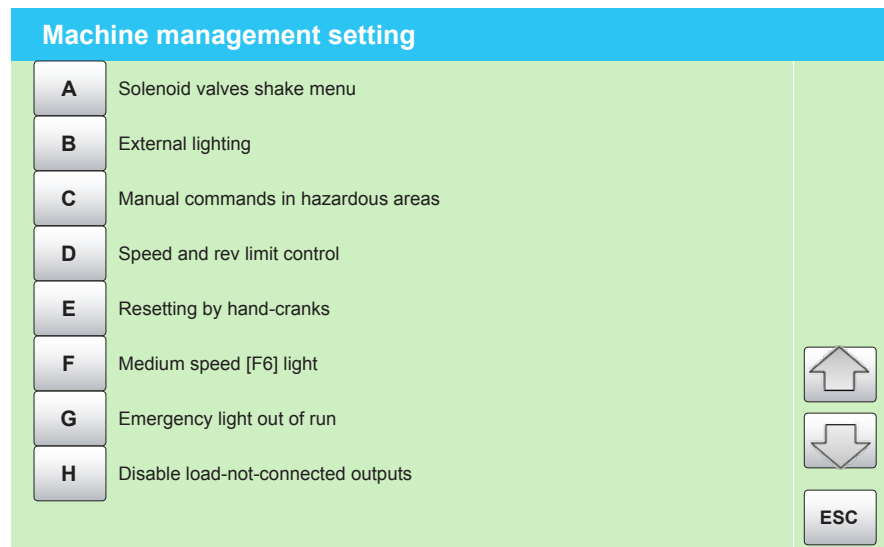
Concerning this see the menu:

In particular:

Main Window

[F4] Machine stop at start of block.

See previous page for more details.



Page 2

Navigating

- A**

Solenoid valves shake menu
 This menu contains configuration windows regarding the solenoid valve Shake procedure.
- B**

Lighting management
 Through this Setup item you enable time operation of the external lighting lamp/s.
- C**

Manual commands in hazardous areas
 When this item is enabled, the yarn finger raising command deactivates during the "heel" stage (reciprocating motion).
- D**

Speed and rev limit control
 This menu determines the behaviour of the device: **Cylinder rmotor** .



Resetting by hand-cranks

Management selection menu. With management enabled, the user is forced to use the buttons [Crank 1] and [Crank 2] during machine reset.



Medium speed [F6] light

In this window you can set up the operation of the Medium Speed lamp when is active the key F6. (**Blue light**).



Emergency light out of run

Through the menu is possible to ... Select the behavior of the red lamp.



Disable load-not-connected outputs

This menu is for use by our technicians.

Machine management setting



Warm up machine

☐ **A** Warm up machine

B Machine cold after: (60-120) Minutes

C Machine warm after: (2-50) Socks

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 1, A ► Warm up machine

After how many socks produced do you consider the machine warm? And after how long of inactivity, do you consider it cold?

This window can be used to fix the heating and cooling times.

Due to thermal dilation, it is advisable to run the machine at a reduced speed when it has just been switched on, i.e. cold.

In this warm-up stage, the speed is limited to 50% of that set by Graphitron.

After a set number of articles, the constraint is removed and the machine can produce at full rate.

If the machine remains stopped or switched off for some time, the heating stage is restored.

Enabling

A

Warm up machine

With management disabled:

The machine follows the programme set by Graphitron.

The machine starts functioning again at the programmed speed.

With management enabled:

This window can be used to fix the heating and cooling times.

To this end, please see paragraph: **Parameters**

Parameters

Enter the new value

Access to the window ... **Numerical keyboard**

First refer to what specified for the previous entry.

B

Machine cold after:

Insert the dwell time and then return to reduced speed operation.

Time is expressed in minutes.

C

Machine warm after:

Enter the number of socks that must be executed at a low speed before switching to a steady speed.

Machine management setting



Inputs setup

Drums board 3

E

☐ Short circuit

F

☐ ☐ ☐ ☐ Load not connected
J2 J3 J4
T11 T10 T9

Lack of power 24 VDC

☐ Serial line

G

☐ Yarnfinger unit
☐ Solenoid-valves unit
☐ Board expansion external

↑

↓

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 1, B ► Inputs setup

This menu covers several pages.

The page sequence is cyclical.

Via the menu, it is possible to enable/disable certain specific inputs.

The disabled device is not handled even when it is connected.

The menu is organised according to the outfit.

One or more items may be lacking, depending on the model.

Enabling

G

Lack of power 24 VDC

The inputs relating to the control of the 24 Vdc are enabled/ disabled all simultaneously. The disabling of the control, together with a suitable modification of the setup, allows the physical disconnection of parts of the hardware for maintenance or for troubleshooting.

More in particular:

The parties involved could be the following:

- Seaming Robot
- Solenoid valves bar.

For further information see also:

[Outputs autoconfiguration](#)

Drums board N (N = Number of the board)

...

Short circuit

Do not currently managed. Maintain the following value: Management disabled

...

Load not connected

When control is enabled, the presence and feed of the pattern drum is verified.



Sole reinforce kit input

This is an optional device, for a particular processing.
The devices present must be enabled and those missing must be disabled.
If a non-present device is enabled, the machine generates errors.



Footlet kit inputs

This is an optional device, for a particular processing.
The devices present must be enabled and those missing must be disabled.
If a non-present device is enabled, the machine generates errors.

Machine management setting



Setup stop chain [F1]

Stop chain end to zero:

☐ **A**

 Maintains state in which is located

☐ **B**

 Inserted

☐ **C**

 Eliminated

☐ **D**

 Time limit [F1] management

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 1, E ▶ Setup stop chain [F1]

In this menu you can set operation for the following function:
[F1] (Chain step stop.).
Enable function after reset? How long shall [F1] be kept activated?

Reference

Concerning this see the menu:
In particular:
(**Machine reset.**)

Main Window
[F0] Program reset, mechanical reset.

Furthermore ...
Concerning this see the menu:
In particular:

Main Window
[F1] Chain step stop.

Selection

Stop chain end to zero:

Through this choice is possible to set the behavior of the F1 key after the machine Reset.

The Zeroing of the machine after pressing the [F0] key is begun.

At end of cycle ...

A

Maintains state in which is located

This mode indicates that the control software will not interfere in management.

The function activated prior to resetting remains active even later.

B

Inserted

After reset, this function is entered automatically.

C

Eliminated

After resetting, the function will be disabled.

Enabling

D

Time limit [F1] management

With management enabled:

If you enter [F1] outside Step Zero, the machine stops after 2 minutes.

With management disabled:

No check is performed.

Press this key again to disable.

Machine management setting



Solenoid valves shake menu

<input type="checkbox"/>	A	Solenoid valves shake		
	B	Number of cycles shake sol.valves	<input type="text" value="0,00"/>	(1-24)
	C	Hours of machine OFF for shaking	<input type="text" value="0,00"/>	(1-50)

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, A ► Solenoid valves shake menu

This menu contains configuration windows regarding the solenoid valve Shake procedure.
This procedure consists of a sequence of commands controlling the movement of the various machine solenoid valves.

Automatic activation depends on how long the machine has been turned off.

Machine on hold at Step Zero.

When the Shake procedure is enabled, you can force the execution of it by clicking a key in the relevant menu.

- Concerning this see the menu:

[Work menu](#)

Enabling

A

Solenoid valves shake

With management enabled:

This window can be used to fix the heating and cooling times. (Solenoid valves) **Furthermore ...**
When the Shake procedure is enabled, you can force the execution of it by clicking a key in the relevant menu. (Machine on hold at Step Zero.)

With management disabled:

The operation is not carried out.
The command is not available.

Parameters

Enter the new value

Access to the window ... [Numerical keyboard](#)
First refer to what specified for the previous entry.

B

Number of cycles shake sol.valves

Number of times the sequence repeats. The sequence is defined by the software.
The procedure verifies (and warms up) the devices (solenoid valves).

C

Hours of machine OFF for shaking

The parameter determines the frequency of the procedure.
Namely ...
Automatic activation depends on how long the machine has been turned off.
Time is expressed in hours.

Machine management setting



Lighting management

☐ **A** External timed lighting

B Ext. lighting switch-off time (Min. 1-30)

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, B ► Lighting management

Through this Setup item you enable time operation of the external lighting lamp/s.

Lighting stays on up until the following machine restart (after an "x" time from restart, lighting goes off).

This "x" switch-off-after-machine-restart time can be set by the operator.

Enabling

A

External timed lighting

With management enabled:

Lighting in the machine area is off during normal operation; it comes when the machine stops. After a time "x" from restart, lighting switches off.

Furthermore:

The user has the possibility of turn on and turn off the external Lighting by pressing the keys in the main window. (Quick menu).

In any case ... The shutdown is given automatically after a specified time. (with machine in motion).

With management disabled:

In this case the lamp stays ON constantly.

The relevant commands are NOT available.

Ext. lighting switch-off time = The field has no meaning.

Parameters

B

Ext. lighting switch-off time

Enter the new value

Access to the window ... [Numerical keyboard](#)

First refer to what specified for the previous entry.

Setting the time after which the External lighting lamps are switched off. (with machine in motion).

Time is expressed in minutes.

The variable can assume the minimum value of: 1 .

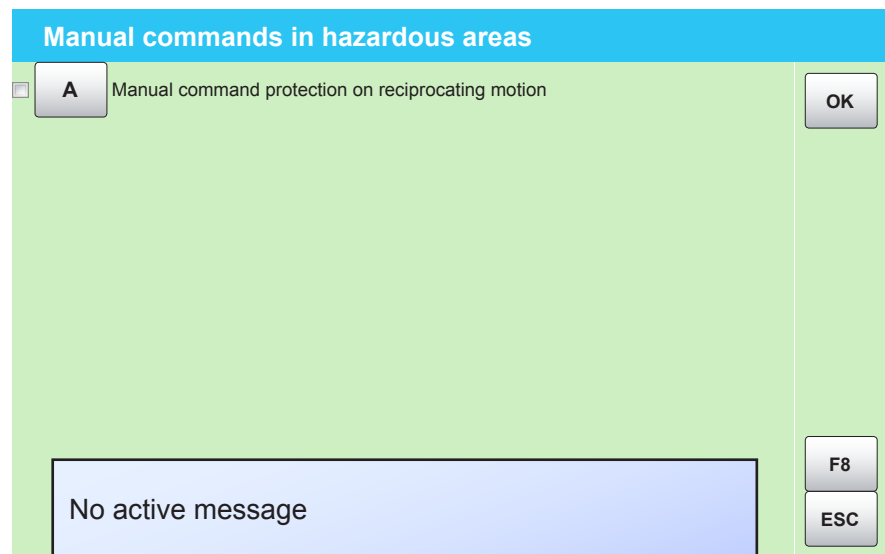
The variable can assume the maximum value of: 30 .

For further information see also:

See also the menu:

[External lighting](#)
[Quick menu](#)

Machine management setting



Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, C ► **Manual commands in hazardous areas**

This menu determines the behaviour of the device:

Rising fingers

The setting is effective in the following phase:

Reciprocating motion

In the menu, you can enable protection from manual commands during the phase specified.

The zones of the sock in which the cylinder alternating motion is set are called "heel blocks".

Enabling

A

Manual command protection on reciprocating motion

With management enabled:

When this item is enabled, the yarn finger raising command deactivates during the "heel" stage (reciprocating motion).

Manual commands to raise the yarn fingers remain enabled in the other sock Zones, but they cannot be used at the heel and toe to prevent textile problems and any needle breakages.

With management disabled:

The command is always available.

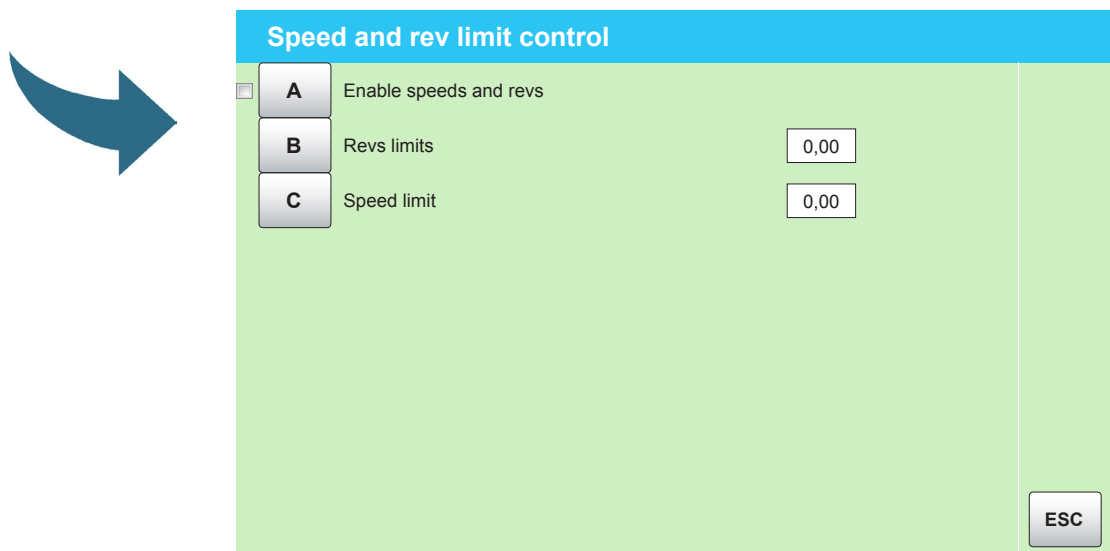
Refer to the menu:

[Manual EV](#)

In particular, refer to item:

Rising fingers

Machine management setting



Path to reach the window

Space-D-C, page 1, A-E, page 2, D ► Speed and rev limit control

This menu determines the behaviour of the device: **Cylinder motor** .

The setting is effective in the following phase: Restarting the machine

With management enabled:

When starts, for a certain number of revolutions, the speed of the cylinder is locked to a fixed value.

Enabling

A

Enable speeds and revs

With management disabled:

The machine starts functioning again at the programmed speed.
The machine follows the programme set by Graphitron.

With management enabled:

Through this function you restricts the speed reached from the cylinder when it starts.
It is possible to change the number of cylinder revolutions paths from the machine with a reduced speed.

To this end, please see paragraph: [Parameters](#)

Parameters

Enter the new value

Access to the window ... [Numerical keyboard](#)

First refer to what specified for the previous entry.

B

Revs limits

Enter the number of revs to be run at the limit speed.
After which ... The machine starts functioning again at the programmed speed.

C

Speed limit

Enter the maximum value possible for the variable.
The value is expressed in RPM (revolutions per minute).
Of course ... For all the speed set by the Program Sock lower than this limit is carried out not no reduction.

Machine management setting



Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, E ► **Resetting by hand-cranks**

Management selection menu. With management enabled, the user is forced to use the buttons [Crank 1] and [Crank 2] during machine reset.

This precaution reduces the risk of breakage due to mechanical problems during reset.

Concerning this see the menu:

In particular:

(**Machine reset.**)

Main Window

[F0] Program reset, mechanical reset.

Selection

Resetting by hand-cranks

The setting is effective in the following phase:
Machine reset.

The Zeroing of the machine after pressing the [F0] key is begun.
Therefore:

A

Disabled

Use the [Handle] or [Start] buttons to rotate the cylinder.

B

Habilitat.

The user is forced to use the buttons [Crank 1] and [Crank 2].

Machine management setting



Medium speed [F6] light

Light when medium speed key (F6) is active:

☐ **A**

Always on

☐ **B**

Not managed

ESC

Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, F ► **Medium speed [F6] light**

In this window you can set up the operation of the Medium Speed lamp when is active the key F6.

In practice:

Through the menu is possible to ... Select the behavior of the Blue Lamp.

Furthers informations are available in the chapter:

Please refer to point:

Control panel
d) Blue light

Selection

Light when medium speed key (F6) is active:

When the key is inserted, then ...

A

Always on

The lamp emits steady light.

B

Not managed

The light remains off.

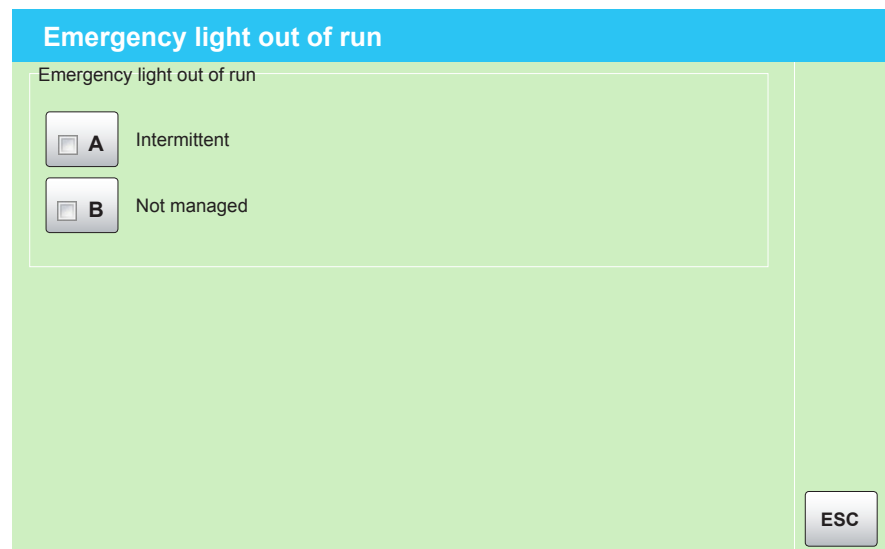
(The condition is not reported.)

Reference

Medium Speed - [F6] active
Concerning this see the menu:
In particular, refer to item:

Machine management setting
Speed value with F6 ON

Machine management setting



Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, G ► Emergency light out of run

The aim of this function is to make stationary machines more visible in the factory by turning on the “Emergency” (red) light, in addition to the “Machine standstill” light (white).

For further information see also:

Control panel

Selection

Emergency light out of run

With machine stopped ...

A

Intermittent

The lamp emits intermittent light.

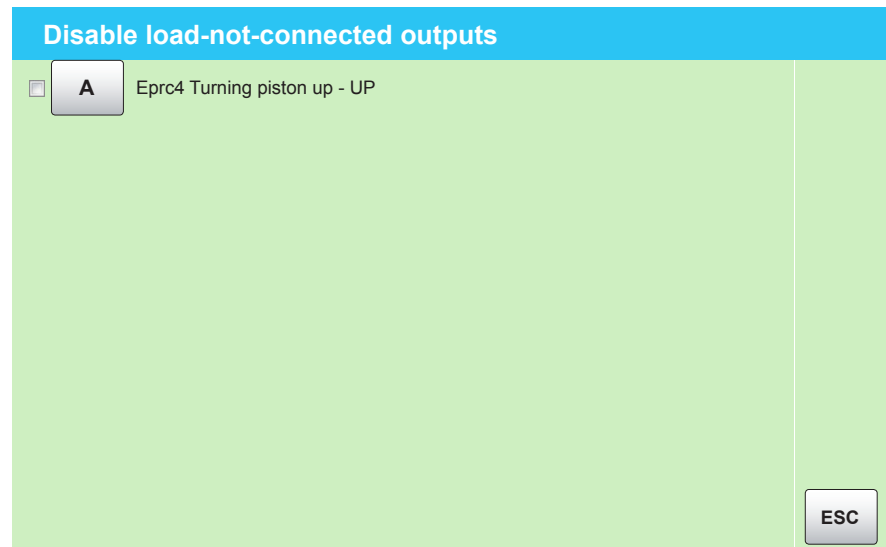
B

Not managed

The light remains off.

(The condition is not reported.)

Machine management setting

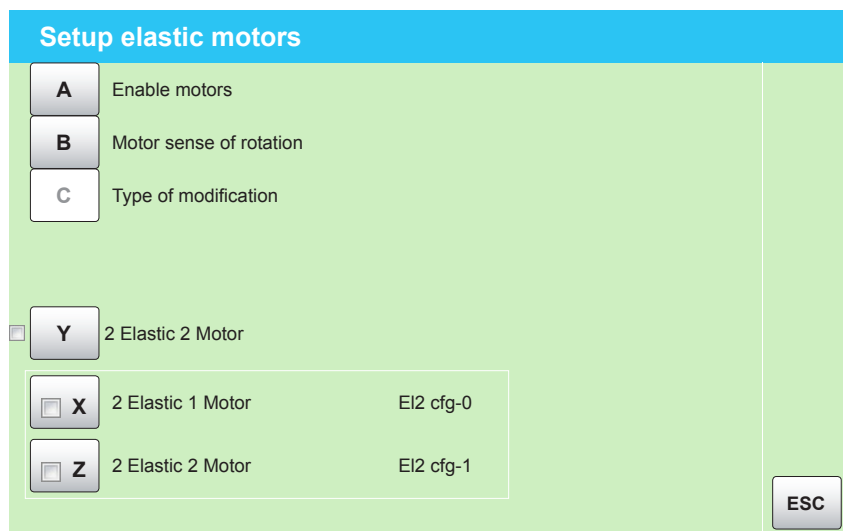


Path to reach the window - From the Main window press:

Space-D-C, page 1, A-E, page 2, H ► **Disable load-not-connected outputs**

This menu is for use by our technicians.

Machine setup



Path to reach the window - From the Main window press:

Space-D-C-A-F ► **Setup elastic motors**

This section refers to spandex motors, called PYF (Programmable Yarn Feeders)

Navigating

Keys that lead to sub-menu

[A] Enable motors

In this window is possible to Enable, or Disable, the management of Elastic/PYF motors.

[B] Motor sense of rotation

In this window you can set the "Rotation direction" of the Elastic/PYF motors.

[C] Type of modification

Disabled . The menu is in progress.

Enabling

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

One or two elastic motors

This window offers a 2 option choice.

In this window you can set the number of Elastic Motors (1 or 2) used for the machine functioning with 2 separate Elastic (Yarn-fingers).

In practice the feeder of 2 different Elastic (supported by the relative Yarn-finger) can be determined by a single Motor or by 2 Motor.

[X]

2 Elastic 1 Motor

By pressing this [Letter] is set as indicated this Setup function. The other options are automatically excluded.

In the configuration with "1 Motor", there are 2 commands which, through 2 pistons, cause one of the 2 Elastic yarns to engage the movement of the individual Motor.

This configuration has some limitations in programming Elastic yarns, as they will not operate simultaneously unless for items in which the 2 Elastic yarns work in the same In/Out and Feed condition.

[Z]

2 Elastic 2 Motor

By pressing this [Letter] is set as indicated this Setup function. The other options are automatically excluded.

In the configuration with 2 Motors, the 2 Elastic Yarns are fully independent (a specific Motor for each Elastic yarn), i.e. without any limitations in programming.

Setup elastic motors



Enable motors

<input type="checkbox"/>	A	Elastic 1
<input type="checkbox"/>	B	Elastic 2
<input type="checkbox"/>	C	Elastic feed 1
<input type="checkbox"/>	D	Lycra motor feed 1
<input type="checkbox"/>	E	Lycra motor feed 2
<input type="checkbox"/>	F	Lycra motor feed 3
<input type="checkbox"/>	G	Lycra motor feed 4

ESC

Path to reach the window - From the Main window press:

Space-D-C-A-F-A ► **Enable motors**

In this window is possible to Enable, or Disable, the management of Elastic/PYF motors.
For the PYFs, you must specify the direction of rotation.

► Concerning this see the menu:

[Motor sense of rotation](#)

Enabling

Select with the special letter the setting you want.

With [Esc] will return to previous window with the modified data in accordance with choice and awaiting the saving in FLASH memory.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Elastic N

Setting of the Status (enabled/ disabled) of the motor indicated.

By pressing the letter sets Enabled/ Disabled this Setup function.

This function must be disabled when it is not available the hardware (command board) on this specific motor.

Notice

Note



The maximum number of PYF motors available depends on the model of machine.

Setup elastic motors



Motor sense of rotation				
PYF 1	<input type="checkbox"/> A	Clockwise	<input type="checkbox"/> B	Anticlockwise
PYF 2	<input type="checkbox"/> C	Clockwise	<input type="checkbox"/> D	Anticlockwise
PYF 3	<input type="checkbox"/> E	Clockwise	<input type="checkbox"/> F	Anticlockwise
PYF 4	<input type="checkbox"/> G	Clockwise	<input type="checkbox"/> H	Anticlockwise
				<input type="button" value="ESC"/>

Path to reach the window - From the Main window press:

Space-D-C-A-F-B ► **Motor sense of rotation**

In this window you can set the "Rotation direction" of the Elastic/PYF motors.
This may be "Clock wise" or "Anticlock wise", according to the assembly of motor support.

Settings

PYF N (Elastic N)

☐ Clockwise / ☐ Anticlockwise

For each motor . . .

This window offers a 2 option choice.

By pressing the letter sets Enabled this Setup function.

The opposing option will be disabled automatically.

Clockwise/anticlockwise refers to rotation of the drive shaft. View from the reel side.

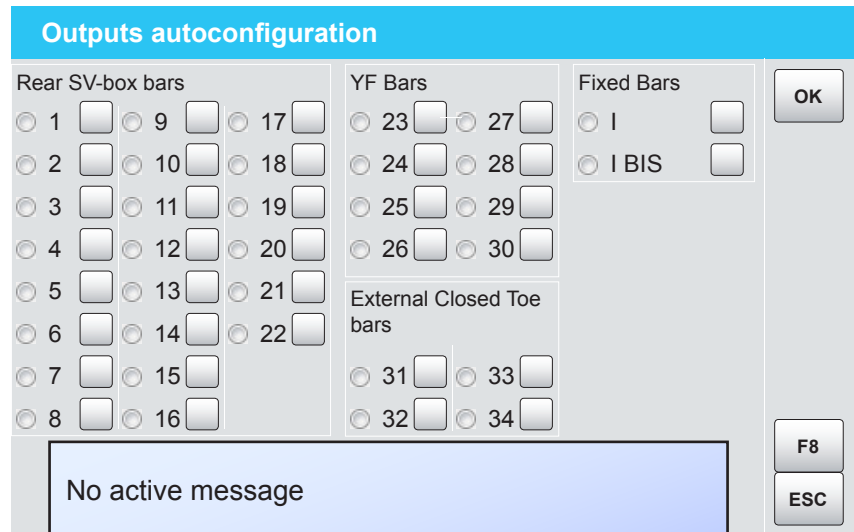
With the Lonati standard application, the DEFAULT condition is the correct one.

Notice

Note



The maximum number of PYF motors available depends on the model of machine.



Path to reach the window - From the Main window press:

Space-D-C-B ► Outputs autoconfiguration

This menu can be used to enable each solenoid valve board.

The boards controlling the pneumatic solenoid valves are called "bars".

The bars send a signal to the solenoid valves.

The yarn finger bars are also called "modules".

The bar control circuit is the serial type.

The board signals are coded and sent through a closed-loop circuit. The boards are placed in series along this loop.

This menu can be used when changes are made to the board structure.

Furthermore:

This menu can be used to identify the serial line failure.

The disabled device is excluded from the analysis of the information sent to the machine.

If the errors disappear by disabling a board, this means that it is the source of the problem.

Enabling

With the [Small arrows] moves this Arrow/Cursor of selection under the data that you want to modify.

Use [Ent] to enable/disable the item.

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.



With management enabled: Active management is ticked.



Management disabled : The key flag (circle next to the number or letter) is empty when management is NOT enabled.

Rear SV-box bars

Approximately, the bars identified with the numbers from "1" to "22" correspond to "Solenoid valves Bar" assembled on rear SV-box.

YF Bars

The bars identified with the numbers from "23" to "34" correspond to the modules mounted on the external interface board Pcb 3759 or any serial boards assembled directly on the machine devices.

For further information, refer to the brochure:

Wiring diagrams (FOGLIO GUIDA DOCUMENTAZIONE APPARECCHIATURA).

Fixed Bars

These data are for internal use.

The bar "I" (internal) cannot be disabled.

The bar "I BIS" (internal) cannot be disabled.

Operating commands

[Ent] / (_ □) Enable/ Disable

Select the item and press the button to Enable/ Disable, the management.

Or click the virtual button on the display.

The selected field is indicated by an arrow.

[Return] / (OK)

If the board or solenoid valve arrangement is modified, the new layout must then be stored.

This operation determines acquisition of the serial outputs on the machine.

This procedure is used to allow the machine to detect the new hardware status.

This procedure is used to store the solenoid valve layout for enabled bars.

Window management

[→] / [←] **[Small Arrow Right] / [Small Arrow Left]**

They select the field in which to enter or modify data.
The keys select the column. (Move the cursor to the right / left.)

[↑] / [↓] **[Small Arrow Up] / [Small Arrow Down]**

With the arrows moves this cursor of selection under the data that you want to modify. **Select the line of interest.**

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.

Navigating

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Notice

Note



Normally something is altered in this window only in the case of installing additional devices involving the addition of new output boards, in the case of particular software updates (but this would be explained in the enclosed instructions).

Other situation of use of this menu, and is the most common instance, during the procedures for solving a breakdown on the I/O serial line , where it becomes necessary to continuously adapt the configuration to the bars/modules actually installed at that stage of the test.

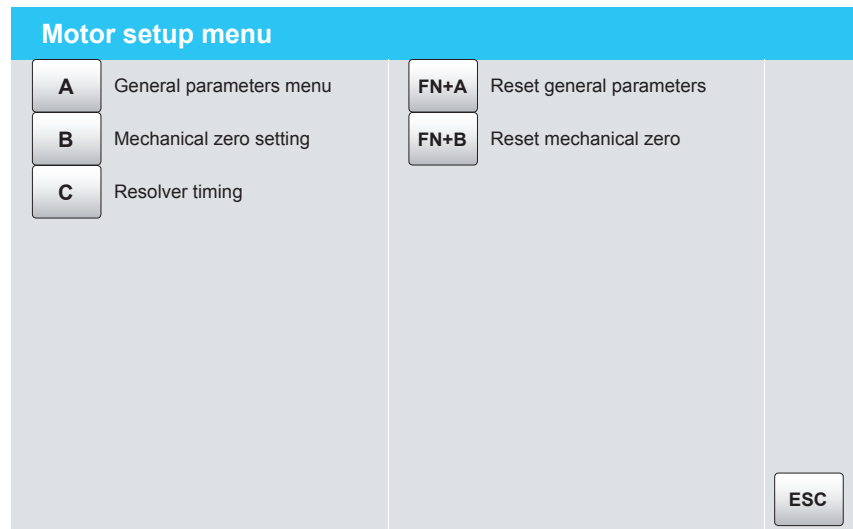
Attention



In the event of window modification, you must launch the command:

[Return] / (OK)

Setup menu



Path to reach the window - From the Main window press:

Space-D-C-C ► **Motor setup menu**

This section allows the following interventions:

Configuration of the operating parameters of the machine main motor.

Access to the menu for the "Mechanical zero acquisition" and "Resolver adjustment".

Furthermore: In this window you can perform the Reset.

Navigating

Passage to other menu.

Choice keys that lead to sub-menu

By pressing the key at the beginning of each item you will be directed to Menu.

[A] - General parameters menu

Access the menu of viewing and editing "software parameters" for the functioning of main motor.

Access the menu of viewing and editing accelerations (ramps) used in the machine functioning (cylinder rotation) in the various conditions.

[B] - Mechanical zero setting

Access to the menu for the mechanical zero acquisition procedure.

[C] - Resolver timing

Access to the menu for the timing of the motor Resolver.

[Fn] + [A] Reset general parameters

By pressing this Letter will perform automatically Reset of the "Heel parameters" and "Heel accelerations".

The result of this operation is the restoration of the default, as defined in the Eprom.

[Fn] + [B] Reset mechanical zero

Launch the reset command before executing a new acquisition (calibration).

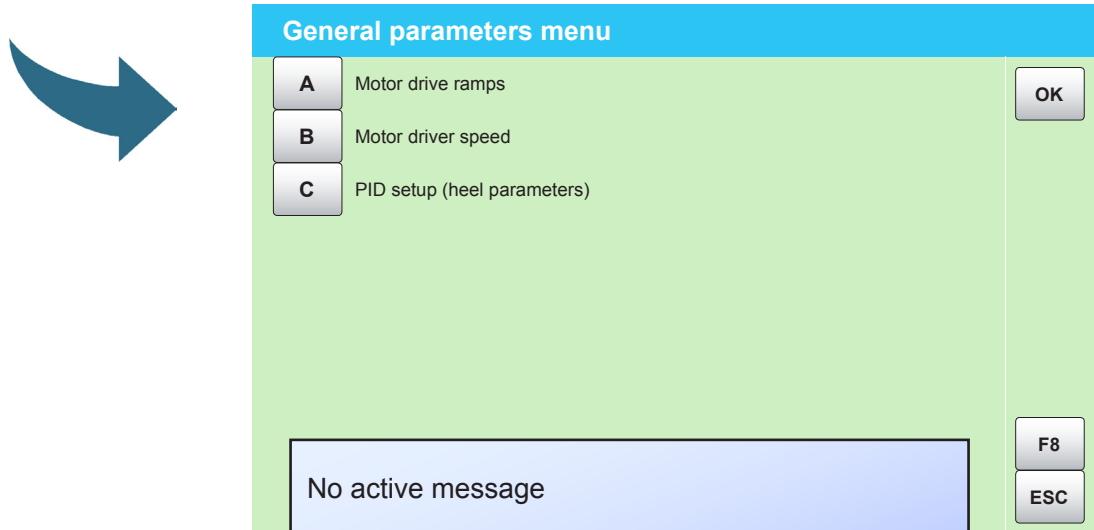
The command resets the part of memory dedicated.

After which: The user must perform a new procedure of the "Mechanical Zero" acquisition.

[Esc] Return to previous menu

Exit from the window and return to previous page.

Motor setup menu



Path to reach the window - From the Main window press:

Space-D-C-C-A ► **General parameters menu**

Submenu relating the operating parameters configuration of the "Machine Main motor".

Navigating

[A] - Motor drive ramps

Menu of viewing and editing accelerations (ramps) used in the machine functioning (cylinder rotation) in the various conditions.

[B] - Motor driver speed

Access to the menu for modifying "Speed" values of the main motor.

This window can be used to determine the machine running speed when is pressed the button: Machine Start Button , Handle-1 (Degree/Degree) key and Handle-2 (Continuous)

[C] - PID setup (heel parameters)

In this window are displayed the values of configuration parameters relating to the operation of "Machine Main Motor".

Operating commands

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Window management

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.

General parameters menu



Motor drive ramps setup

Handles ramps

A	Acceleration in handle 2	<input type="text"/>	rpm/s
B	Deceleration in handle 2	<input type="text"/>	rpm/s
C	Acceleration in handle 1 (degree/degree)	<input type="text"/>	rpm/s
D	Deceleration in handle 1 (degree/degree)	<input type="text"/>	rpm/s

ESC

Path to reach the window - From the Main window press:

Space-D-C-C-A-A ► **Motor drive ramps setup**

Menu of viewing and editing accelerations (ramps) used in the machine functioning (cylinder rotation) in the various conditions.

The motor standard parameters are optimal for correct operation: they must not be modified unless this is done upon precise instructions by Lonati technical team.

The values of these parameters that are incorrect may cause serious malfunctioning of the motor.

Settings

Parameters

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.

Via the relevant command select the desired setting.

When you enter the window the current parameter value is shown.

March button**Acceleration / Deceleration**

- [A]** This parameter (Rpm/Sec) determines the ramp used by the software during the positive accelerations.
- [B]** This parameter (Rpm/Sec) determines the ramp used by the software during the negative accelerations.

Handle-2 (Continuous)**Acceleration / Deceleration**

- [C]** This parameter (Rpm/Sec) determines the ramp used by the software during the positive accelerations.
- [D]** This parameter (Rpm/Sec) determines the ramp used by the software during the negative accelerations.

Handle-1 (Degree/Degree) key **Acceleration / Deceleration**

- [E]** This parameter (Rpm/Sec) determines the ramp used by the software during the positive accelerations.
- [F]** This parameter (Rpm/Sec) determines the ramp used by the software during the negative accelerations.

Decelerating ramp**Deceleration**

- [G]** This parameter (Rpm/Sec) determines the ramp used by the software during braking with the consequent "machine stop".

Decelerating ramp : Stop with error**Deceleration**

- [H]** This parameter (Rpm/Sec) determines the ramp used by the software during braking with the consequent "machine stop".
The stop in this case is only the one caused by a machine error (for example "Stop needles...").

Navigating

[A] ... [H] Enter the new value

Access the submenu of editing. / **Access to the virtual keyboard.**
Therefore: Directly insert the value through the numbers.
Confirm with [OK]. and Press [ESC] to exit .

General parameters menu



Motor drive speed setup		
A	Handle-2 speed	<input type="text"/> rpm
B	Handle 1 (Degree/Degree) speed	<input type="text"/> rpm
C	Pushed-button speed	<input type="text"/> rpm
		<input type="button" value="ESC"/>

Path to reach the window - From the Main window press:

Space-D-C-C-A-B ► **Motor drive speed setup**

This window can be used to determine the machine running speed when is pressed the button:
Machine Start Button , Handle-1 (Degree/Degree) key and Handle-2 (Continuous)
Via the relevant command select the desired setting.

-

Parameters

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.

Via the relevant command select the desired setting.

When you enter the window the current parameter value is shown.

[A] Handle-2 speed

The value refers to the speed at which the cylinder rotates if the following key is kept pressed:

Handle-2 (Continuous)

The value is expressed in RPM (revolutions per minute).

[B] Handle 1 (Degree/Degree) speed

The "Speed degree/degree" parameter determines the quickness (speed) of implementation of the single movement due to the pressure of the [Handle 1] key.

The value is expressed in RPM (revolutions per minute).

[C] Pushed-button speed

The value refers to the speed at which the cylinder rotates if the following key is kept pressed: Run machine (Machine Start Button)

The value is expressed in RPM (revolutions per minute).

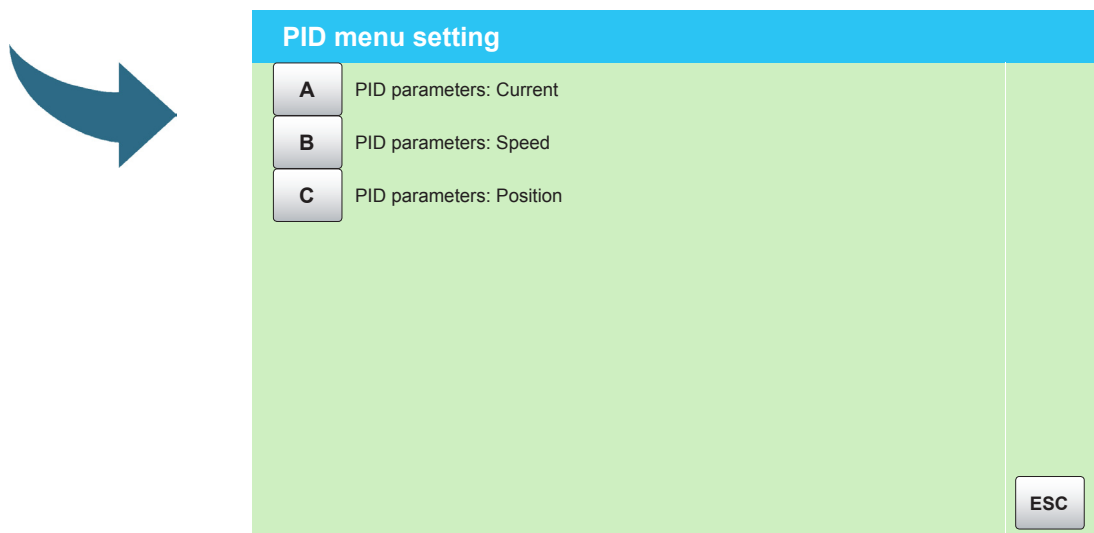
[A] ... [C] Enter the new value

Access the submenu of editing. / **Access to the virtual keyboard.**

Therefore: Directly insert the value through the numbers.

Confirm with [OK]. and Press [ESC] to exit .

General parameters menu



Path to reach the window - From the Main window press:

Space-D-C-C-A-C ► **PID menu setting**

In this window are displayed the values of configuration parameters relating to the operation of "Machine Main Motor".

These parameters are the ones for the correct functioning of the machine and they must not be changed unless requested by the Lonati technical staff.

The values of these parameters that are incorrect may cause serious malfunctioning of the motor.

The motor is controlled by monitoring a value.

The parameters taken into consideration are: Current , Speed , Position .

To achieve maximum precision, the software uses one unit of measurement rather than another, based on the current job.

The value is parameterized.

The parameters are the followings:

Proportional , Integrative and Derivative .

[A] - PID parameters: Current

Access the menu of viewing and editing "software parameters" for the functioning of main motor.

[B] - PID parameters: Speed

Access the menu of viewing and editing "software parameters" for the functioning of main motor.

[C] - PID parameters: Position

Access the menu of viewing and editing "software parameters" for the functioning of main motor.

Attention

The values of the parameters above displayed are those current.

They may have variations, caused for example by the machine model or by the subsequent software implementations.

In case of specific problems on the cylinder movement, can be requested by the Lonati technical staff a modification of these parameters.

To avoid any damage, any such alteration must be agreed with the Lonati technical staff.

The DEFAULT parameters, which you can restore executing a "Reset Heel Parameters", allow the effective operation of the machine, without the risk of damage.

PID menu setting



PID current setting

KP value/scaling	A	<input type="text" value="0"/>	B	<input type="text" value="0"/>
KI value/scaling	C	<input type="text" value="0"/>	D	<input type="text" value="0"/>
KD value/scaling	E	<input type="text" value="0"/>	F	<input type="text" value="0"/>

ESC

Path to reach the window - From the Main window press:

Space-D-C-C-A-C-A ► PID current setting

In this window are displayed the values of configuration parameters relating to the operation of "Machine Main Motor".

These parameters are the ones for the correct functioning of the machine and they must not be changed unless requested by the Lonati technical staff.

The values of these parameters that are incorrect may cause serious malfunctioning of the motor.

PID menu setting



PID speed setting

KP value/scaling	A <input type="text" value="0"/>	B <input type="text" value="0"/>
KI value/scaling	C <input type="text" value="0"/>	D <input type="text" value="0"/>
KD value/scaling	E <input type="text" value="0"/>	F <input type="text" value="0"/>

ESC

Path to reach the window - From the Main window press:

Space-D-C-C-A-C-B ► **PID speed setting**

In this window are displayed the values of configuration parameters relating to the operation of "Machine Main Motor".

These parameters are the ones for the correct functioning of the machine and they must not be changed unless requested by the Lonati technical staff.

The values of these parameters that are incorrect may cause serious malfunctioning of the motor.

PID menu setting



PID position setting

KP value/scaling	A <input type="text" value="0"/>	B <input type="text" value="0"/>
KI value/scaling	C <input type="text" value="0"/>	D <input type="text" value="0"/>
KD value/scaling	E <input type="text" value="0"/>	F <input type="text" value="0"/>

ESC

Path to reach the window - From the Main window press:

Space-D-C-C-A-C-C ► PID position setting

In this window are displayed the values of configuration parameters relating to the operation of "Machine Main Motor".

These parameters are the ones for the correct functioning of the machine and they must not be changed unless requested by the Lonati technical staff.

The values of these parameters that are incorrect may cause serious malfunctioning of the motor.

Motor setup menu



Mechanical zero

Program

Step
Degree
Need.

Mechanical zero acquisition

MECHANICAL ZERO SETTING: Use handle-1 or 2 push buttons to align the cyclinder with the mechanical zero

Crank mode

No active message

Path to reach the window - From the Main window press:

Space-D-C-C-B ► Mechanical zero

In this window you can acquire the "Mechanical Zero" position.
On entering this window you access a "Testing program".
The machine by entering in this "Test Program" must be able to run.

In this window is determined the displacement between the physical zero of the motor Resolver (zero phase) and the real mechanical zero of the machine.
This displacement value acquired will be used in the machine software to determine the real zero to use for all the machine movements.

Reference

For basic information, refer to:
In particular, refer to the paragraph:

Mechanical Adjustments (manual).
[Mechanical zero acquisition](#)

Reference

For basic information, refer to:
In particular, refer to the paragraph:

Mechanical Adjustments (manual).
[Mechanical zero acquisition](#)

Access to the menu

Access to the menu is only allowed in the following case: **Mechanical zero missing**

Therefore:

Launch the reset command before executing a new acquisition (calibration).

- ▶ Concerning this see the menu:
- ▶ Space-D-C-C Motor setup menu ->
In particular:
[Fn] + [B] Reset mechanical zero

Calibration

The calibration operation (setting, registration) is called:

-MECHANICAL ZERO SETTING

Operate the mechanical or electric handle (1 and 2) to rotate the cylinder a few turns until degree count commences (see field in menu).

Then, using the mechanical or electric handle (1 and 2) position the zero cylinder correctly according to the specific model:

To store the mechanical zero position press ... **[Return] / (OK)**

Operating commands

[Return] / (OK)

Mechanical zero acquisition

Confirmation of the "Mechanical zero position" achieved with the rotation of the cylinder through the [Handle] keys.

[F8]

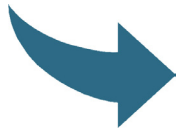
Eliminates any error/warning messages displayed. This key is used to eliminate errors/warnings on the machine display.

For the error to be reset, it is necessary to remove its cause, otherwise it persists.

[Handle 1 and 2]

Rotation of the Cylinder for the search of the position of mechanical zero.

Motor setup menu



Resolver timing

Position detected

Start the resolver timing with the key [A]. Hold down the handle-2 push button until the motor reaches the in-couple position. Rotate manually the resolver until the detected position readout becomes '0'. Upon finishing the procedure, save: the machine will then have to be restarted.

A

 Start resolver timing

ESC

Path to reach the window - From the Main window press:

Space-D-C-C-C ► **Resolver timing**

The resolver is a rotating transformer constituted by a fixed part (stator) that is mechanically coupled with the stator of a Brushless motor, and by a rotating part (rotor) that is coupled with the motor shaft.

The resolver reads the angular position of the motor shaft and sends it to the motor control unit (board for control).

The machine is supplied ready for production.

If the resolver needs to be replaced or serviced, it needs to be synchronised with the motor.

The timing of the resolver with the motor is a very important operation for the "motor/control unit" assembly to work correctly.

Incorrect timing may cause in the motor a loss of torque, block or turn it in the wrong direction.

The following procedure should be carried out with the utmost precision and only by trained personnel.

For basic information, refer to:

Mechanical Adjustments (manual).

In particular, refer to the paragraph:

Synchronisation of the resolver with the motor

Preparation

Before performing the procedure, cancel the active article:

Concerning this see the menu: [Delete program](#)

POSITION DETECTED

In this window appears a number that indicates the distance for the Resolver by its position of Zero.
Turning the Resolver Stator, bring this number to zero and then block the Stator; this is its Zero position.

Operating commands

Press the key:

[A] *Start resolver timing*

Start procedure

Then, press the button:

[Handle 2]

Keep the [Handle-2] key pressed until the cylinder will move suddenly until it stops in a certain position.

A number is displayed in the menu.

Rotate the stator until the number changes to 0.

Lock with the appropriate screws the Resolver Stator in this "Phase position".

Window management

[Esc] **Return to previous menu**

Exit from the window and return to previous page.

MESSAGES

The following message is displayed when the key is pressed.

22.0 : Mechanical zero missing



After which:

The user must turn off and then turn on the machine.



Now that the resolver is synchronised with the motor, the zero must sent to the machine, i.e. at what point on the cylinder to start counting the degrees and needles.

Concerning this see the menu:

[Mechanical zero](#)

Setup menu



IP address setup

☐ **A** Network connection OK

☐ **B** BOOTP/DHCP

C IP Address:

D Subnet mask:

E Gateway:

Mac Address:

No active message

F8
ESC

Path to reach the window - From the Main window press:

Space-D-C-D ► **IP adress setup**

In this window you can set the "Local" address for the machine.

The machine must be prepared for a "Net type NAUTILUS" connection: in practice must be properly prepared with specific devices by Dinema S.p.A.

These machine configurations must be done by the Net installer.

The Net connection is useful, for example, to quickly load and unload the files between machine and computer.

Keep a record of all the addresses for each individual machine if Setup is lost.

Enabling

Select with the special letter the setting you want.

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

[A] Network connection

With function disabled:

The machine is not connected to the information network.

With the function enabled:

To continue operation, the following keys are enabled: [B], [C], [D], [E].

Thanks to the menus, the network address is given to the serial number.

Enter the machine address (identification code) for the network.

[B] BOOTP/DHCP

With function disabled:

The following keys are enabled in this menu: [C], [D], [E].

Thanks to the menus, the network address is given to the serial number.

With the function enabled:

The following keys are DISABLED in this menu: [C], [D], [E].

The network address to the machine is attributed automatically.

Operating commands

[C] - [D] - [E] *Machine network address*

Access to the virtual keyboard. Therefore: Directly insert the value through the numbers.

Confirm with [OK].

[Return] / (OK)

SAVE DATA

This command is used to save the values defined in the menu. (submenu) .

Wait for the message that indicates completion of the operation.

MESSAGES

Wait for the message: `5.1 Ethernet data correctly saved`

[F8]

Eliminates any error/warning messages displayed. This key is used to eliminate errors/warnings on the machine display.

For the error to be reset, it is necessary to remove its cause, otherwise it persists.

Setup menu



Single-item-counter setting

Light outcounter

☐ **A**

Light On

☐ **B**

Flashing

ENT

Basket electric valve energizing time in seconds

0,00

☐ **C**

Management sock passage

☐ **D**

Sock count reset management

OK

ESC

Path to reach the window - From the Main window press:

Space-D-C-E ► **Single-item-counter setting**

This window can be used to set the solenoid valve actuation time for basket change.

Furthermore:

Through the menu is possible to:

Select the behavior of the Blue Lamp (OUT-COUNTER).

Enable/ Disable the management of the following function: Management sock passage

In this window is possible to Enable a different procedure for the Sock-counter zeroing when is activated a new Sock Program (file ".co").

Operating commands

Enter the new value

Access to the window ... **Numerical keyboard**



Press [Return] / (OK) to confirm the settings and then return to previous window.
Wait until data saving has finished.

Selection



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.
In this window can be selected the behavior of the "Blue" Lamp (OUT-COUNTER) when the "Target" of socks production ("Sock counter") is reached, and "B" and "C" light activating options are set in "Sock counter" programming.

Lamp outcounter

[A] Light On / [B] Flashing

This window offers a 2 option choice.
The 2 options which can be set from Setup are "Blue Lamp" = "Light On" Constant or Flashing.
Select with the special letter the setting you want.
The opposing option will be disabled automatically.

Parameters

There is only a field where to record the modification.
When you enter the window the current parameter value is shown.

Basket electric valve energizing time in seconds

Access by pressing [Ent].
In this window you can set the time that remains active the "Basket change" command (Solenoid valve) when it intervenes.
The customer then will use this automatic command available on the machine for the operation of a dedicated device to implement the change of the container (Basket) where arrive the socks produced.
This "Basket change" command is linked to the programming of the "Basket socks-counter", and intervenes when it reached the Target of socks programmed.

Enabling

[C] Management sock passage

Sock ejection device

The control device on the tube is comprised of an infrared ray emitter photodiode (lamp simulation) with a light-sensitive phototransistor in front of it.

The sensor (Phototransistor) is placed opposite the light, when passes the Sock it is momentarily darkened and then sends the signal of Sock Passage to the input board.

With function disabled:

The disabled device is not handled even when it is connected.

With the function enabled:

In this case if the sock is not detected by the control device, the error associated with the sock passage is generated.

This error informs the user that, in the Sock Cycle segment between the command (code) "Sock passage enabling" and the command (code) "Sock passage control" the software has not received the signal.

[D] Sock count reset management

With function disabled:

Normally when is activated a Sock Program the Sock-counter is zeroed.

With the function enabled:

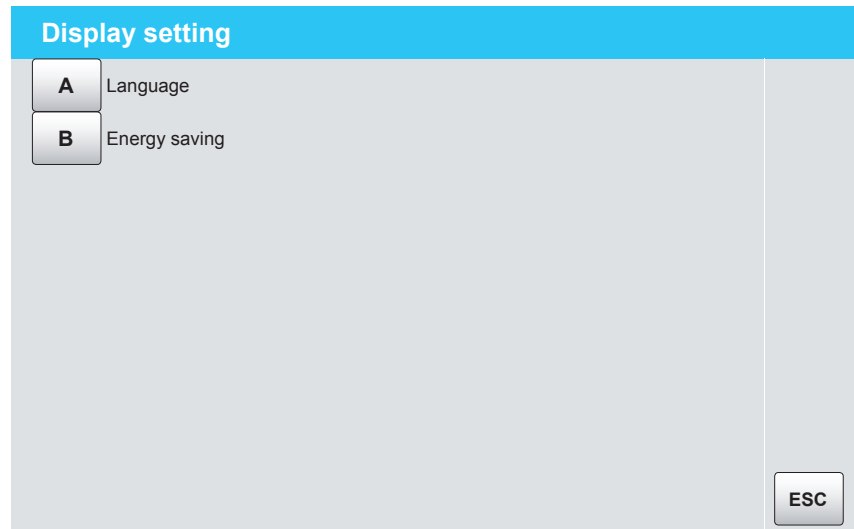
With this Setup function enabled the Sock-counter zeroing is not automatic.

In the moment of the activation of the Sock Program the user appears a choice window where is asked if clear the Sock-countere or maintain the values previously reached.

Each time is activated a Sock Program the user can then choose to clear the Sock-counter.

This operation logic also applies in the case of a change in the active Size.

Setup menu



Path to reach the window - From the Main window press:

Space-D-C-F ► **Display setting**

In this window are available some "functions" or "configuration menu" on the "Language used", "Display contrast", and time of Display lamp Switching off (for the increase of the remaining life).

Navigating

[A] - Language

In this window you can set the language used by the machine.

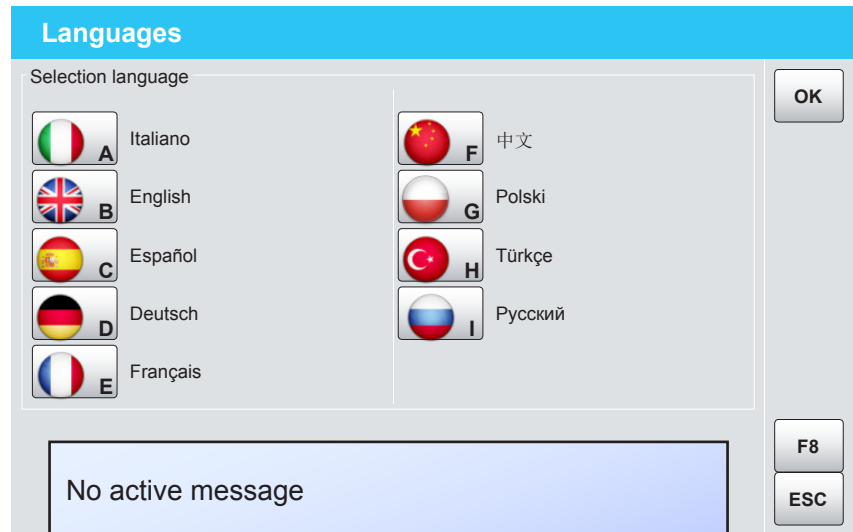
[B] - Energy saving

In this window you can set the Contrast of the Display.

Furthermore:

In this window you can set the time that must be the last operation carried out on the keyboard (LCD), after which will be turned off the internal lamp lighting the LCD (if present).

Display setting



Path to reach the window - From the Main window press:

Space-D-C-F-A ► Languages

From this window, you can select the interface language.

Settings

Parameters

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.

Via the relevant command select the desired setting.

When you enter the window the current parameter value is shown.

The window is the same for all models of machine.

If any item - for a model - is not available, it is displayed in grey. Furthermore: The corresponding key is not enabled.

[] Italiano - English - Español - Deutsch - Français

[] 中文 - Polski - Türkçe - Русский

Selection language

Select the corresponding language via a letter:

The active key is highlighted graphically on the display.

Press [Return] / (OK) to confirm the settings.

This operation is executed immediately.

Operating commands

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.

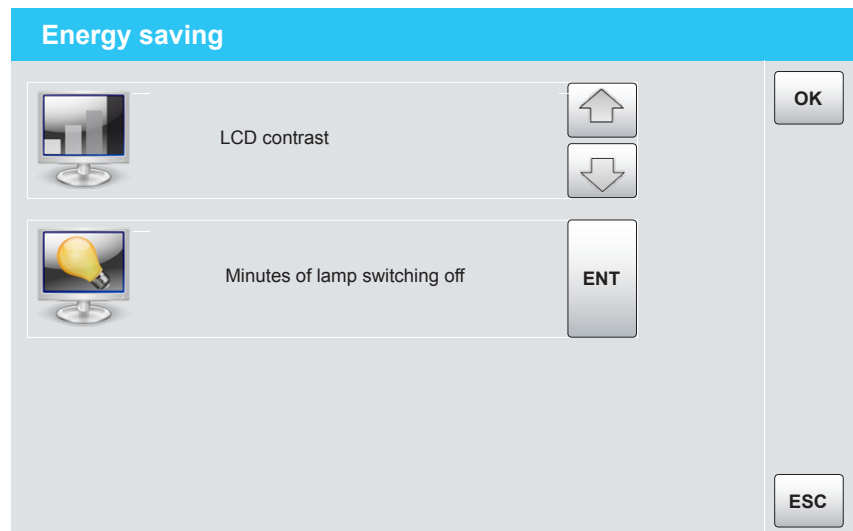
Wait until completion of saving in the Flash memory.

Window management

[F8] Eliminates any error/warning messages displayed.

This key is used to eliminate errors/warnings on the machine display. For the error to be reset, it is necessary to remove its cause, otherwise it persists.

Display setting



Path to reach the window - From the Main window press:

Space-D-C-F-B ► **Energy saving**

Display brightness can be regulated via this window.

When the value is increased, the display is brighter.

Furthermore:

This window can be used to establish the display switch-off time after no use of commands.

Parameters

LCD contrast

When the value is increased, the display is brighter.
The minimum variation is: 5 units.
The variable can assume the maximum value of: 100 .
The variable can assume the minimum value of: 5 .

Minutes of lamp switching off

The time off is expressed in minutes, and not be zero (it is not possible to disable this function), this is to ensure the life of the "Display lamp".
The variable can assume the minimum value of: 1
When half the set time has elapsed, the brightness reduces by 50%. The display switches off at the end of the set time.
Access by pressing [Ent].

Operating commands

[▲] / [▼] [Large Arrow Up] / [Large Arrow Down]

The control increments the parameter. / The command decrements the parameter.

[Return] / (OK) Confirm the data entered.

This command is used to save the values defined in the menu.
Wait until completion of saving in the Flash memory.

Enter the new value

Access to the window ... [Numerical keyboard](#)



Notice

Note



When the machine stops with an error and when the user uses the keyboard, the lamp lights allowing the display of data on the "Machine Display".
When the lamp is "turned off", the first pressure of a key lights up the lamp but do not perform any other operation.
This functionality need to preserve the lamps of the "Display LCD", it remains "Off" when the machine is during the normal production phase and the user does not interact with it.

Setup menu



Fan contactor setup

Type of enable

☐ **A**

Enabled (standard)

☐ **B**

Enabled (stop with error)

☐ **C**

Disabled

T

Fan switching-off timesec.

ENT

Zero position AIR VACUUM VALVE

0

(360-385) Steps

☐ **W**

VPE fully close

-

+

+/- 1

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-D-C-G ► **Fan contactor setup**

In this window is possible to Enable, or Disable, the functioning of the Suction Fan.

If suction is provided by the external fan (and not by a centralized system), it is necessary to specify operation.

Otherwise:

The devices present must be enabled and those missing must be disabled.

If a non-present device is enabled, the machine generates errors.

Reference

Manual commands : VPE motor

Concerning this see the menu:

See also ...

[Quick menu](#)
[Autotest VPE](#)

Selection

Enabling/ Disabling of the device.

In any case ...

- The emergency button stops the fan. (In any mode, the pressure of the Emergency Button determines the opening of the Fan Contactor.).
- When the fan must stop, the logic unit await until the VPE is at a standstill.
- The fan always activates when the manual command is used for the VPE.

When the machine isn't arranged for the Suction Fan (does not assembly the Fan relè), is obligatory set for this heading "Disable", otherwise will appear the "Fan thermal" error.

In this case: All the other menu items will be ignored.

Type of enable

A

Enabled (standard)

As a rule, the fan is always in operation.

The device is stopped in the following circumstances:

- When function F1 is enabled at step Zero or End of Cycle.
- When the machine is stopped by the user. (Machine Stop Button)
In this case: the device stops after the time set in the specific field.

B

Enabled (stop with error)

First refer to what specified for the previous entry.

In this case, there are other situations in addition to that described above.

Therefore:

The device is stopped in the following circumstances:

- When the machine is stopped due to the presence of a failure.

C

Disabled

When this option is selected, fan operation is inhibited.

The disabled device is not handled even when it is connected.

Parameters



Fan switching-off time

Enter the new value

Access to the window ... [Numerical keyboard](#)

First refer to what specified for the previous entry.

The field has significance only in the following case:

- **When the machine is stopped by the user.**

The field indicates: The time interval after which the device must be stopped. (delay).

Time is expressed in seconds.

The variable can assume the minimum value of: 0 (This operation is executed immediately.).



Zero position AIR VACUUM VALVE

Enter the new value

Access to the window ... [Numerical keyboard](#)

The control valve follows the program instructions and addresses the suction flow.

The stepping motor-driven valve rotates one revolution every 400 steps.

The value is expressed as motor steps.

With an external fan, enter "380".

In this way ...

Alternative management prevents the nozzle from continuing suction, which thus prevents the external fan motor from overheating.

Enabling



VPE fully close

First refer to what specified for the previous entry. (Zero position AIR VACUUM VALVE).

With management enabled:

When the Vpe must go to zero (380), it closes completely (400) for a few seconds.

This function can be used during the phase:

- Sock extraction ,
- Dial jack unloading .

With management disabled:

The device has a standard behaviour.

In this case ... A relief valve can be mounted.

Refer to the documentation provided for ordering spare parts.

**Confirm the data entered.**

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

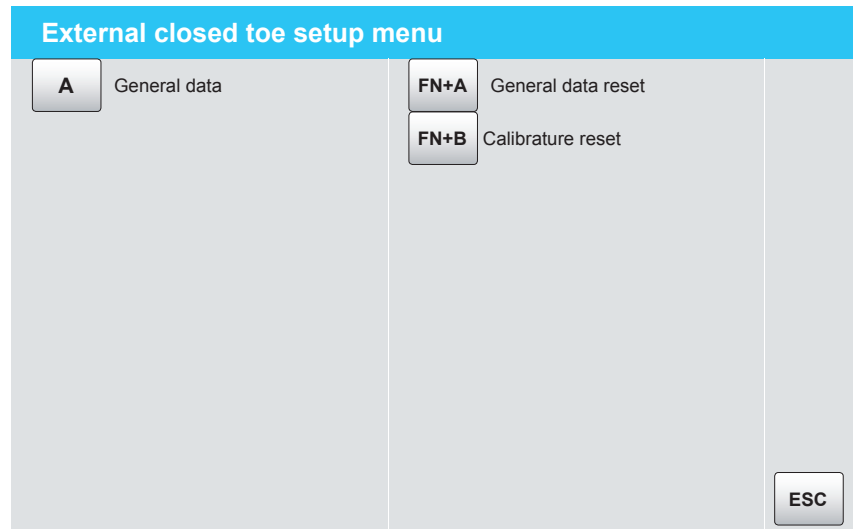
**Zero position AIR VACUUM VALVE**

The control increments the parameter. / The command decrements the parameter.

The minimum variation is: 1 units.



Setup menu



Path to reach the window - From the Main window press:

Space-D-C-H ► **External closed toe setup menu**

Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

This menu allows the following operations: **Enabling/ Disabling of the device.**

Furthermore ... The menu contains device control options.

From this menu you can launch the following operation:

- Calibrature reset and/ or General data reset

Remember that:

The disabled device is not handled even when it is connected.

Therefore: The controls (and/or operations) specified are active only when the device is enabled.

The information provided applies to the following models: Stitch-by-stitch models.

This type is also called: External Closed Toe.

Keys that lead to sub-menu

[A] General data

Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

This menu allows the following operations: **Enabling/ Disabling of the device.**

At each operating status, on display in the dedicated area, is shown the corresponding icon.

Furthermore ... The menu contains device control options.

Remember that:

The disabled device is not handled even when it is connected.

Therefore: The controls (and/or operations) specified are active only when the device is enabled.

The information provided applies to the following models: Stitch-by-stitch models.

This type is also called: External Closed Toe.

Operating commands

[FN] + [A] - General data reset

This command returns all the parameters entered in the menu (and submenus) to the initial default value.

The operation cannot be performed if the device is disabled.

[FN] + [B] - Calibration reset

This operation deletes the settings made from the menu: **Linker Motor**

(The operation cannot be performed if the device is disabled.)

After which: The software ascertains that the value required to continue is missing.

The machine will automatically deactivate the program *.co.

A *.cs programme can be activated.

The sock program is special and is already prepared by GRAPHITRON.

Indeed ...

No need to launch a reset command to perform a new acquisition (calibration).

To verify or change any setting, you only need to reserve it.

► Concerning this see the menu:

Linker Motor

External closed toe setup menu



General setup external closed toe

<input type="checkbox"/>	A	Sock extraction and seaming	<input type="button" value="OK"/> <input type="button" value="Up"/> <input type="button" value="Down"/> <input type="button" value="F8"/> <input type="button" value="ESC"/>			
<input type="checkbox"/>	B	Stop barriers				
<input type="checkbox"/>	C	Kit for sock presence control				
<input type="checkbox"/>	D	Heavy sock ejection				
<input type="checkbox"/>	E	Barrier active warning light				
Select type of chain seaming						
<input type="checkbox"/>	1	Type 1 [16c/10]	<input type="checkbox"/>	2	Type 1 [7c/22]	
<div>No active message</div>						

Path to reach the window - From the Main window press:

Space-D-C-H-A ► General setup external closed toe

Seaming Robot

The device picks up the item from the cylinder and transfers it to seaming.

This menu allows the following operations: **Enabling/ Disabling of the device.**

At each operating status, on display in the dedicated area, is shown the corresponding icon.

Furthermore ... The menu contains device control options.

Remember that:

The disabled device is not handled even when it is connected.

Therefore: The controls (and/or operations) specified are active only when the device is enabled.

The information provided applies to the following models: Stitch-by-stitch models.

This type is also called: External Closed Toe.

This menu covers several pages.

The page sequence is cyclical.

Settings

Select with the special letter the setting you want.

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Enabling

[A] Sock extraction and seaming

With management enabled:

The robot and machine are independent. They operate in synchronisation during sock extraction. For the device to work, you need to enter specific codes in the sock programme (Graphitron).

- Furthermore ... In this menu you can enable or disable some optional devices or specific functionality related to machine equipped with external "Closed Toe" device (CTE).

With management disabled:

The disabled device is not handled even when it is connected.

Sock programmes encoded for the robot (pick-up, sewing, ejection) cannot be activated.

With the correct programmes, the machine operates like the models without a robot.

Therefore: With "Closed toe" disabled, the sock comes out of the ejection device unseamed.

[B] Stop barriers

With management enabled:

The optical barriers are active. With the option enabled, when the robot is in motion the machine stops when the barriers are trespassed.

Special cases : Phase stop (The device advances by one phase at each pulse by the operator.)

Indeed ... The barriers are only enabled when executing the phase (moving parts) and return in suspension during hold time

With management disabled:

The disabled device is not handled even when it is connected.

See in this regard as reported under the item: Barrier active warning light

[C] Kit for sock presence control

With management enabled:

The device detect the extraction of the sock from the cylinder.

In this way ... The cylinder can resume operation and immediately start the next item.

Namely ... This device allows you to gain some seconds compared to the initial outfit.

With management disabled:

The work is resumed only after authorisation is given by the following mechanical / electrical unit:

Eprc10 Sock present control rod / Turning dev. down inclination motor .

Remember that: The devices present must be enabled and those missing must be disabled.

[D] Heavy sock ejection

The information provided applies to the following models:

Machine equipped with: **External fan** .

Enable this entry if the seamed sock is not ejected.

The machine will report the situation via a message.

The electronic control valve directs the suction flow in the machine depending on the programmed work stage.

With management enabled:

For particularly robust socks (in terms of type of yarn and length), you need to concentrate at certain times the entire suction in robot ducts.

When this entry is enabled, the entire suction system is used by the robot when it is not required in the machine.

With management disabled:

With management disabled, machine behaviour is standard.

[E] Barrier active warning light

Via this option you can decide the meaning of the flashing yellow light.

The selection is not linked to entries for the item: Stop barriers

With management enabled:

The light flashes if ...

The seaming robot is working (sock not yet ejected).

With management disabled:

The light flashes when ...

The seaming robot is working (sock not yet ejected) while the machine has stopped at end of cycle due to F3 being pressed.

Selection

Via the relevant command select the desired setting.

The other options are automatically excluded.

The feedback flag is inside the key icon.

-

[1] / [2] Select type of chain seaming

The fabric is the residual yarn due to sewing of the sock toe.

In this window you can select the "fabric" length.

This window offers a 2 option choice.

The other options are automatically excluded.

[16c / _] , [7c / _]

This digit indicates the number of stitching points forming the fabric.

[_ / 10] , [_ / 22]

This value indicates the excursion step between stitches.

The value is expressed in tenths of a degree.

The fabric length depends on various factors.

No sense to provide indicative values.

[1] Type 1

When this option is selected: the fabric length is standard.

[2] Type 1

When this option is selected: the fabric length is reduced.

Select with the special letter the setting you want.

Confirm the data entered.

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.



With management enabled: Active management is ticked.



Management disabled : The key flag is empty when management is NOT enabled.

Enabling

[D] Reset automatic seaming in ignition

Concerning this see the menu: **Linker Motor**

In particular: Sewing device resetting

[A] Sewing enable warm up

At each operating status, on display in the dedicated area, is shown the corresponding icon.

With management disabled:

With management disabled, machine behaviour is standard.

With management enabled:

Through this item you enable the number of socks to do with working frequency of the stepper motors reduced with respect to the standard.

After a set number of articles, the constraint is removed and the machine can produce at full rate.

If the machine remains stopped or switched off for some time, the heating stage is restored.

This window can be used to fix the heating and cooling times.

Parameters

First refer to what specified for the previous entry.
When you enter the window the current parameter value is shown.
The letter preceding the item indicates the menu access key. In particular, refer to the paragraph: **Navigating**

- [B] Cold sewing after:**
Insert the dwell time and then return to reduced speed operation.
Time is expressed in minutes.
- [C] Hot sewing after:**
Enter the number of socks that must be executed at a low speed before switching to a steady speed.

Navigating

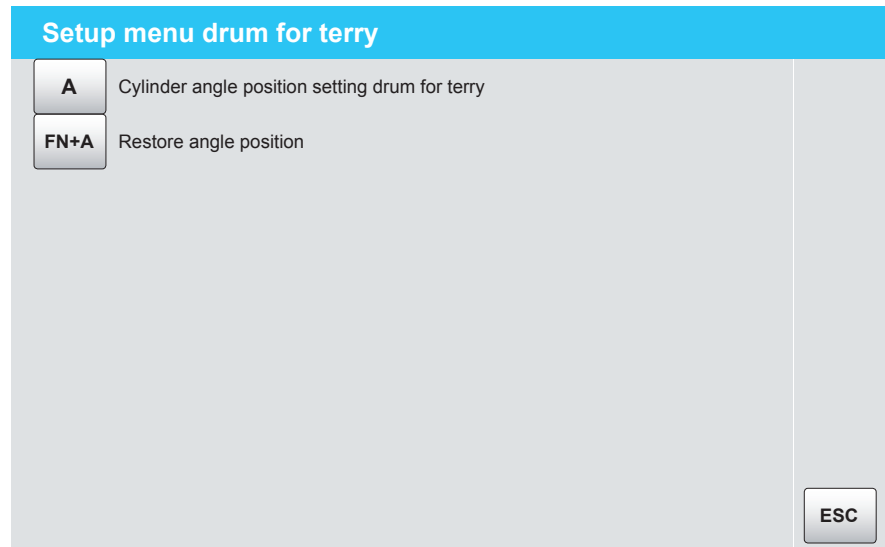
- [B] , [C] Enter the new value**
Access the submenu of editing. / **Access to the virtual keyboard.**
Therefore: Directly insert the value through the numbers.
Confirm with [OK]. and Press [ESC] to exit .
- [Esc] Return to previous menu**
Exit from the window and return to previous page with eventually modify of data.

Reference

- ▶ ▶ **Control panel** Further informations are available in the chapter:
- ▶ **point 12)** More in particular:
- ▶ For further information see also: **Linker motor Help**
- ▶ Path: FN+C , Help

Further informations are available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#)

Setup menu




Path to reach the window

Space-D-C-I ► **Setup menu drum for terry**

Setup menu drum for terry



Cylinder angle position setting drum for terry

Degree	<input type="text" value="000"/>	Need.	<input type="text" value="000"/>	Pulse	<input type="text" value="0000"/>	<input type="button" value="OK"/>
A	Confirmation selection position: FORWARD				<input type="text" value="0000"/>	<input type="button" value="F8"/> <input type="button" value="ESC"/>
B	Confirmation selection position: BACKWARDS				<input type="text" value="0000"/>	
	Crank mode					

No active message

Path to reach the window

Space-D-C-I-A ► **Cylinder angle position setting drum for terry**

Setup menu



Lubrication unit
Lubrication unit management

☐ **A** Standard

☐ **B** Oil delivery control

☐ **C** Oil control at turns

Lubricate number of revs

No active message

Path to reach the window

Space-D-C, page 2, A ► Lubrication unit

Personalise this menu according to the machine actual outfit.

Furthermore ...

In this window you can set a different management for the oil pumped (machine lubrication).

Operating commands

Data saving

Press [Return] / (OK) to confirm the settings and then return to previous window.

Wait until data saving has finished.

Selection



Lubrication unit management

Select the device by touching the corresponding letter/ number.
Ensure that the type of device selected is that present in the machine.

The machine can be equipped with the following devices: (*)

A] Pump with external pressure switch

B] Pump with sensor

[**Standard**]
[**Oil delivery control**]

If a non-present device is enabled, the machine generates errors.

(*) At present ... A] G2910529 , G2910530 ; B] G3910081 .

Enabling



Oil control at turns

Normally the lubrication is managed with the appropriate codes inserted in the Sock Program (programming with GRAPHITRON).

With management disabled:

The machine performs the operation according Graphitron programming.

With management enabled:

The oil pumped is carried out each "x" number of Cylinder revolution, independently from the programming of the Sock.

To this end, please see paragraph: **Parameters**

Parameters



Lubricate number of revs

Enter the new value

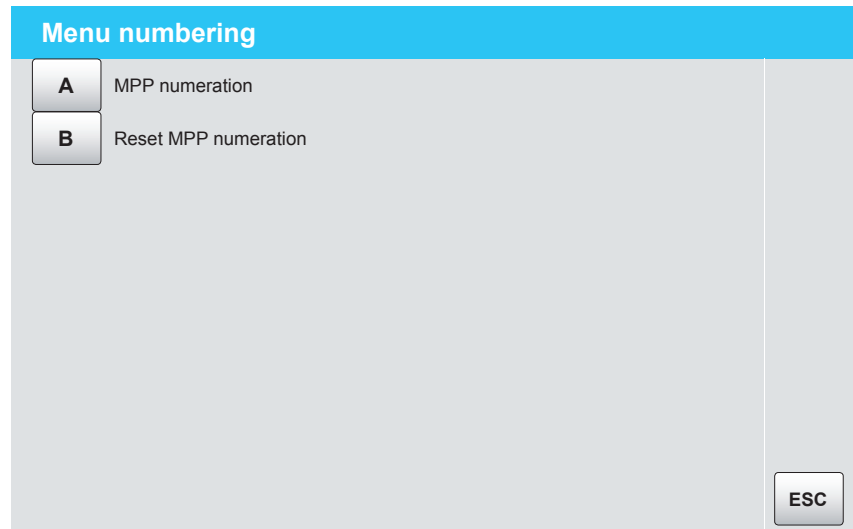
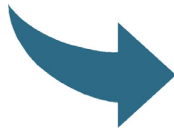
Access to the window ... **Numerical keyboard**

First refer to what specified for the previous entry.

The variable can assume the minimum value of: 50 .

The variable can assume the maximum value of: 3000 .

General menu



Path the reach the window - From the Main window press:

Space-D-D ► **Menu numbering**

Access the menu of "CAN boards numbering" available on the machine.

CAN is a special connection protocol, it connects to the "machine main processor" devices that will perform specific functions authorized by the processor.

Each board must be numbered so that it's recognized by the software.

Command boards of motors

These modules are any type of control boards which can command one or more motors.
(stepping motors or brushless motors).

[Mpp = Stepping Motors (ita.: motori passo passo)].

A

MPP numeration

In this window you can run the numbering of the CAN modules.

Each board present in the machine must be numbered so that it's recognized by the software; for each board will be at the same time associated the motors available on the machine.

To cancel press: [B].

To this end, please see paragraph:

[Operating commands](#)

Operating commands

B

Reset MPP numeration

The command performs the cancellation of the data.

Before proceeding the user is asked for a confirmation.

After which ... Wait for the message that indicates completion of the operation.

The data are removed from FLASH memory.

After reset the procedure must be repeated.

(Motor Board Numbering).

Refer to what specified for the previous entry.

Menu numbering





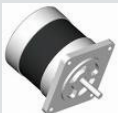
MPP numeration


Detected devices

Motor in Numbering

Board in numbering



 Cancel

No active message

OK

F8

ESC

Path the reach the window - From the Main window press:

Space-D-D-A ► **MPP numeration**

In this window you can run the numbering of the CAN modules.

Each board present in the machine must be numbered so that it's recognized by the software; for each board will be at the same time associated the motors available on the machine.

The menu is operative only if data acquisition is required.

Namely ...

- In case of Addition, Replacement, or Removal of one or more sensors. , Or ...
- The dedicated memory is completely empty.

In case of Addition, Replacement, or Removal

- The software only requires the numbering of new boards, and the confirmation of the elimination for those removed.

Note

CAN is a special connection protocol, it connects to the "machine main processor" devices that will perform specific functions authorized by the processor.

Each board must be numbered so that it's recognized by the software.

Command boards of motors

These modules are any type of control boards which can command one or more motors.

(stepping motors or brushless motors).

[Mpp = Stepping Motors (ita.: motori passo passo)].

Procedure

To perform the numbering of CAN modules is necessary to see the movement which one at a time, the Motors will run.

During the procedure the enabling sequence is random: any of the connected modules may prepare for the numbering.

When you enter this menu, the procedure starts up.

The following message appears: 15. 0 .



The motor in Numbering is one that performs a repetitive movement of some steps forwards and backwards.

If the board controls more than one motor, all the motors controlled will be running.



View the field: **Motor in Numbering** .

Run through the list of motors using the [Large Arrows].

In the list of motors choose any one among those in the movement for numbering the board.



Confirm with [OK].

The motor thus identified disappears from the list.



Another board will prepare for the numbering.

Repeat from point ... 1 .



At the end of numbering a notice warning the user.

In fact:

The following message appears: 15 .2 .

Confirm with [OK].

to escape without saving ... Press the key: [A] .

Selection



Motor in Numbering (= Board in numbering) .

Field showing the motor name.

The field indicates what devices are controlled by the board.

Run through the list of motors using the [Large Arrows].

When you identify the motor actually moving press [OK].

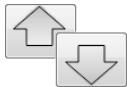
Operating commands



Cancel

Returns to the previous menu, cancelling any changes made.

The current procedure is interrupted. The procedure restarts from the beginning when you re-access the menu.



Motor in Numbering (= Board in numbering) .

Select the motor.

Use the arrow keys to scroll through the list of available codes.

Confirm with [OK].

The list of codes not yet assigned reduces gradually as you advance.



Confirmation of the selected value. / Confirm the data entered.

In this context the key has two functions.

- Confirmation of the selected value.
- This command is used to save the values defined in the menu.

**Detected devices r / d**

The field shows two numbers separated by a slash.

r = The first number expresses: the quantity of boards detected by the system.

d = The second number indicates the total number of boards that the model can accommodate.

**Board in numbering**

The field updates automatically.

Code for internal use.

Note

Currently the boards used almost all are positioned directly on the motor.

(Boards type RS, RSA, RX, PY.).

The exception is the TX board which can control two stepper motors.

Some of these modules can control small brushless motors: for example the boards of the PY family, used on PLUS motors.

These codes (e.g. "RS") are indicative of boards belonging to the same family, i.e. boards that use the same Firmware.

General menu



Production data

Date

Time

A

Set date and time

B

Error statistics

Total time

Time last sock

Time average for sock

Working efficiency

ESC

Path to reach the window - From the Main window press:

Space-D-F ► **Production data**

In this window is available a list of data referring to the various "Production times" and values of Efficiency for the machine.

Furthermore:

- In this window is possible to modify time and date.
- The section contains the list of the last errors occurred in the machine.

A**Date and time**

The machines are equipped with an internal clock.

The clock must always be set since it is used by the software for controlling other devices or menus.

B**Error statistics**

In this window is available a list of last 70 Errors/Alarms appeared on the machine.

For each Error/Alarm is given "Day" and "Hour" in which it is appeared, "Hour" for Restoration (elimination of the Error/Alarm), "Step" and "Degree" in which it is appeared, "Number" of the Error/Alarm in this list.

Production data



Date and time

Date

&GG

&MM

&AAAA

Time

&HH

M&N

OK

ESC

Path to reach the window - From the Main window press:

Space-D-F-A ► **Date and time**

The machines are equipped with an internal clock.

The clock must always be set since it is used by the software for controlling other devices or menus.

[Esc] Return to previous menu

Exit from the window and return to previous page with eventually modify of data.

Production data



Error statistics

Date	Time ON	Time OFF	Step	Degree	N°
XX-XX-XX	XX-XX-XX	XX-XX-XX	XXX	XXXXXX	XXX

Loading message...

Previous

Next

I First

E Last

Ctrl+R Empty list

ESC

Path to reach the window - From the Main window press:

Space-D-F-B ► **Error statistics**

In this window is available a list of last 70 Errors/Alarms appeared on the machine.
For each Error/Alarm is given "Day" and "Hour" in which it is appeared, "Hour" for Restoration (elimination of the Error/Alarm), "Step" and "Degree" in which it is appeared, "Number" of the Error/Alarm in this list.

Navigating

[Esc] **Return to previous menu**

Exit from the window and return to previous page.

Management menu



Pieces counter menu

General sock-counter

Produced	<input type="text"/>	Rejects	<input type="text"/>
Programmed	<input type="text"/>	Sewing mach.rejects	<input type="text"/>
Operation	<input data-bbox="694 443 742 481" type="text" value="?"/>		

- A** General sock-counter
- B** Total sock-counter
- C** Shifts sock-counter
- D** Baskets sock-counter
- E** Link change settings
- F** Active link-program

ESC

Path to reach the window - From the Main window press:

Space-E ► **Pieces counter menu**

From this window you can access the menu of sock-counter and link-program management.

The sock-counter manages the production counts of the socks produced (stops the machine at the end of the set number; it also divides this total, if necessary, into shifts and organises basket changing).

In the window is displayed the current status of the "General Socks-counter".

Refer to the menu:

[General piece-counter menu](#)

A**General piece-counter menu**

This window allows to configure the socks to be produced, to correct any errors between those produced and discarded, and to set the type of operation to be carried out when the target is reached.

B**Total piece-counter menu**

The "Total Socks-counter" show the whole of the "Valid and Non Valid socks" produced by the machine until that time.

C**Shifts piece-counter menu**

The Shifts Socks-counter" is a system to control the number of "Produced Socks" for each shift (counting of the produced socks), not to set the "Production Target" value, as for example may be used, the "General Socks-counter".

D**Baskets piece-counter menu**

The machine can be equipped with a device that automatically alternates the collecting baskets. The change takes place at every programmed value reached or at every change of article in the programmed sequence (chain sequence).

E**Link change settings**

In this window are displayed the data relating to "Active Link Programs".
Through the menu is possible to ...

- Make changes to the sock-counter programming.
- Set the desired size.
- Change the article target.

F**Link list**

In this window are displayed the data relating to "Active Link Programs".
Through the menu is possible to ...
Make changes to the sock-counter counting.

General sock-counter

Refer to the menu:

[General piece-counter menu](#)

In particular ...

- Programmed :
- Operation :

For details see: **Target**

For details see: **Type**

Reference

Settings

Concerning this see the menu:

[Single-item-counter setting](#)

Light outcounter

Furthers informations are available in the chapter:
Please refer to point:

**Control panel
d) Blue light**

- Note for GL models

Furthers informations are available in the chapter:
Please refer to point:

**Control panel
11) Blue light**

Pieces counter menu



General piece-counter menu

Pieces counter		Type
P	Produced	<input type="checkbox"/> A
S	Rejects	<input type="checkbox"/> B
T	Target	<input type="checkbox"/> C

OK

ESC

Path to reach the window - From the Main window press:

Space-E-A ► **General piece-counter menu**

First consult the information contained at the start of the section.

This window allows to configure the socks to be produced, to correct any errors between those produced and discarded, and to set the type of operation to be carried out when the target is reached.

On display in the dedicated area ... It shows the status of the system.

Concerning this see the menu:

Please refer to point:

Main Window

24) General sock-counter

Reference

The menu is not enabled if al link programme is activated.

In this case:

Refer to the menu:

Or:

Link change settings

Link list

Pieces counter

Parameters / Variable physical magnitudes

Enter the new value

Access to the window ... [Numerical keyboard](#)

This value is reset by changing the article.
The latter behaviour depends on the Setup.
Concerning this see the menu:

[Single-item-counter setting](#)

Use the following commands to adjust the value:



Produced

Valid items produced up until that time.



Rejects

Number of the "Rejected socks" (caused by zeroing, mini cycle, etc.).
These "Rejected sock" don't cause the increase of the Produced socks.
The number is inclusive of socks rejected for problems on the Robot. (Fn+F2 , Fn+F0).

Concerning this see the menu:

[Main Window](#)

Please refer to point:

[27. d - Delete special economizers](#)

Robot rejects are counted separately in other menus.

Concerning this see the menu:

[Pieces counter menu](#)

Or:

[Shifts piece-counter menu](#)

There are rejects that cannot currently be detected.
It is up to the machine operator to check production and adjust the count.



Target (Programmed)

Total items to produce.

Number of valid socks to produce (Production Target), when it's reached the machine shall advise the user that the target has been reached.

See in this regard as reported under the item:

[Type \(Operation \).](#)

See the following page.

Selection

Type (Operation).

Definition of the answer when ...

Produced = Target .

On reaching the number of programmed socks ...

A

Production continues without any signal.
The user is required to manually update the counter (subtraction).
(Produced - Target = Produced).
Concerning this see the menu:
The same effect is obtained with the following setting:
Target = 0

[Quick menu](#)

B

Production continues, but this fact is signaled by the "Out Counter" light flashing.
The counter is not reset.
Furthermore: The following message appears: 9. 0 .
In order to interrupt the light signal, it is necessary: to intervene (arithmetic operation) on the counter.
After which ... Delete the message by pressing F8.

C

The machine stops and this fact is signaled by the "Out Counter" light flashing.
Furthermore: The following message appears: 9. 0 . The counter is set at zero.
By pressing F8 the blue light will turn off and the message will be deleted.

Deepening

It is possible to set a second production Target.
Concerning this see the menu:

[Baskets piece-counter menu](#)

Pieces counter menu



Total piece-counter menu

Pieces counter

P	Produced	<input type="text"/>
S	Rejects	<input type="text"/>

OK

ESC

Path to reach the window - From the Main window press:

Space-E-B ► **Total piece-counter menu**

First consult the information contained at the start of the section.

The "Total Socks-counter" show the whole of the "Valid and Non Valid socks" produced by the machine until that time.

In the window is displayed the current status of the "Total Socks-counter".

Reference

The menu is not enabled if al link programme is activated.

In this case:

Refer to the menu:

Or:

[Link change settings](#)

[Link list](#)

Pieces counter

The "Total Socks-counter" cannot be zeroed with a direct key: its value should be indicative of the total Socks production of the machine in his working life.

The window can be used to monitor the production from any given moment onwards: mark when the counter has been set to zero.

Parameters / Variable physical magnitudes

For basic information, refer to:

[General piece-counter menu](#)

Enter the new value

Access to the window ... [Numerical keyboard](#)

The value is NOT reset by changing the article.

Use the following commands to adjust the value:



Produced



Rejects

Pieces counter menu



Shifts piece-counter menu

Active shift

Produced	Rejects	Sewing mach. rej.	Time	Minutes
Shift 1				
Shift 2				
Shift 3				
Shift 4				

☐ **A** Enable shifts

B Reset active shift

OK

ENT

ESC

Path to reach the window - From the Main window press:

Space-E-C ► **Shifts piece-counter menu**

First consult the information contained at the start of the section.

The Shifts Socks-counter" is a system to control the number of "Produced Socks" for each shift (counting of the produced socks), not to set the "Production Target" value, as for example may be used, the "General Socks-counter".

You can set up to 4 hours (shift) of work, each with a time-slot manageable freely by the user.

Enabling



Enable shifts

With management disabled:

The menu has no meaning

With management enabled:

The window handles data relating to the numbers of socks produced and discarded by the machine, with totals divided into shifts.

You can set from 1 to 4 Shift, of course with timetables coherent.



Modify shift item-counter

Access the edit window of the highlighted datum.

Before performing the procedure it is necessary ...

Press the field that you want to change the value (the field will highlight).

Press : Time / Minutes .

Select the line of interest.



Active shift

Active Shift in that moment.

The Shift automatically changes to the time set.

The variable can have the following values: 1 , 2 , 3 , 4 .

The shifts sock counter makes use of the internal clock so it is essential for the clock to be set.

Concerning this see the menu:

[Date and time](#)



Produced / Rejects / Sewing mach. rej.

The value is NOT reset by changing the article.
These values are not editable in this window.
Refer to the menu:

[General piece-counter menu](#)

Operating commands



Reset active shift

Resetting values (Produced and Rejected) of turn active.

The command resets the counter.

The command is effective on the current shift only.

The operation has no effect on the other counters.

Obviously ...

When the shift returns, the count starts from zero.

Shifts piece-counter menu



Modify shift item-counter

Shift

Produced

Rejects

Sewing mach.rejects

Clock

☐ Am ☐ Pm

OK

F8

ESC

No active message

Path to reach the window - From the Main window press:

Space-E-C-Ent ► **Modify shift item-counter**

Please see the previous menu for the basic information.

In this window are displayed and is possible to alter the "Shifts Socks-counter" setting values.
After which ... Confirm with [OK].

Parameters / Variable physical magnitudes

Clock

Enter the new value

Access to the window ... [Numerical keyboard](#)

Enter the following details in the window: Start time of the work Shift (now and minutes).

For the work Shifts that might not use must set the value "00: 00".

Date-Time in American format

With management enabled:

For the work Shifts that might not use must set the value "12:00 AM".

Refer to the menu:

[General data setting](#)



Time



Minutes

Selection

Ante meridiem / Post meridiem

Date-Time in American format

With management enabled:

Specify whether the time, according to English notation, is Am or Pm.

Make the selection through the dedicated icon.



Ante meridiem



Post meridiem

Example 1

Let us assume to activate the "Shifts Socks-counter" on 3 work Shifts, with these timetables : 06:00 - 14:00 ; 14:00 - 22:00 ; 22:00 - 06:00.

Under "Hour" for Shifts 1, 2, 3 enter the hour each Shift starts, i.e. : 1st Shift - 06:00; 2nd Shift - 14:00; 3rd Shift - 22:00 ("end of current Shift" = "start of next Shift"). For the 4th Shift is kept the value "00:00" (turn doesn't exist).

Confirm with [OK].

Pieces counter menu



Baskets piece-counter menu

Pieces counter		Type
P	Produced	<input type="checkbox"/> A
T	Target	<input type="checkbox"/> B
		<input type="checkbox"/> C
S Basket changeover		

OK

ESC

Path to reach the window - From the Main window press:

Space-E-D ► **Baskets piece-counter menu**

First consult the information contained at the start of the section.

The machines can be fitted with an automatic basket changer.

The change is made when the target set in this window is reached, or at the article/ size change of the link-program.

On display in the dedicated area ... It shows the status of the system.

Concerning this see the menu:

Please refer to point:

Main Window

25) Baskets sock-counter

Reference

The menu is not enabled if al link programme is activated.

In this case:

Refer to the menu:

Or:

Link change settings

Link list

Pieces counter

Parameters / Variable physical magnitudes

For basic information, refer to:

[General piece-counter menu](#)

Enter the new value

Access to the window ... [Numerical keyboard](#)

This value is reset by changing the article.

The latter behaviour depends on the Setup.

Concerning this see the menu:

[Single-item-counter setting](#)



Produced

Valid items produced up until that time.

The basket also collects rejects.

In order to deepen the concept see:

[Rejects](#)

There are rejects that cannot currently be detected.

It is up to the machine operator to check production and adjust the count.



Target (Programmed)

Number of valid socks to produce, when it's reached the machine will perform the operation of Basket change.

=

Number of valid socks to produce (Production Target), when it's reached the machine shall advise the user that the target has been reached.

See in this regard as reported under the item:

Type (Operation).

See the following page.

Control is deactivated by entering a value equal to: 0 .

In this case ...

The dedicated counter will show the value in the general counter.

Type (Operation).

Definition of the answer when ...

Produced = Target .

Selection

On reaching the number of programmed socks ...

The counter is set at zero.

(Produced = 0).

Furthermore:

A

Production continues without any signal.

B

Production continues, but this fact is signaled by the "Out Counter" light flashing.

Furthermore: The following message appears: 9. 7 .

By pressing F8 the blue light will turn off and the message will be deleted.

C

The machine stops and this fact is signaled by the "Out Counter" light flashing.

Furthermore: The following message appears: 9. 7 .

By pressing F8 the blue light will turn off and the message will be deleted.

Notice

If bag-emptying completion is not confirmed, the machine does not start filling the bag in second position.

The latter behaviour depends on the Setup.

Concerning this see the menu:

Please refer to point:

Main Window

25) Baskets sock-counter

**Basket changeover**

By pressing this key will be reversed the position of two bags for the collection of the socks.
This function is used by the user to chose the bag at the start production.

Or ...

The command is used to facilitate access to the basket of interest.

The command is available at the following conditions:

- Machine on hold at Step Zero.
- Machine running at step zero (with F1 activated).

Deepening

Concerning this see the menu:

[Quick menu](#)

Example 1Sock count reset management

General piece-counter menu :	Produced = 25	Target = 50
Baskets piece-counter menu :	Produced = 5	Target = 10

-> Ctrl+0 (General sock-counter zeroing) =>

General piece-counter menu :	Produced = 20
Baskets piece-counter menu :	Produced = 0

Namely ... When you press the key ...

Produced (General piece-counter menu) -
Produced (Baskets piece-counter menu) =
Produced (General piece-counter menu)

->

Baskets piece-counter menu :	Produced = 0
------------------------------	--------------

Example 2

Sock-counter setting (baskets) with production in progress.

General piece-counter menu :	Produced = 30	Target = 60
Baskets piece-counter menu :	Produced = (30)	Target = 0
=>		
-> Baskets piece-counter menu :	Target = 20	=>
General piece-counter menu :	Produced = 30	Target = 60
Baskets piece-counter menu :	Produced = 10	Target = 20

Example 3

Increase sock-counter / Decrease sock-counter (Produced)

Basket change occurs when achieving the target (adding) or the 0 (subtracting).

Decrease sock-counter :

Of course ... The command is available at the following conditions:

Produced (General piece-counter menu) > 0 .

Pieces counter menu



Link change settings

Link

General sock-counter

☐ Keeping

Programmed

Operation

☐ A☐ B☐ C

Article	Size	Sti.	Ela-Yoyo	Programmed

Page 1

Path to reach the window - From the Main window press:

Space-E-E ► **Link change settings**

The menu is enabled at the following conditions:

►► A link programme is activated. + Machine on hold at Step Zero.

In this window are displayed the data relating to "Active Link Programs".

Through the menu is possible to ...

- Make changes to the sock-counter programming.
- Set the desired size.
- Change the article target.

Remember that:

Chain (Linking p.) sequence indicates the programming of a cyclic sequence of articles via the Graphitron.

The article chain (sequence) has the ".cn" extension.

Attention : The expression Link indicates both programming (.cn) and the article (.co) belonging to it.

L'activation d'un programme enchaîné (.cn) s'effectue comme celle d'un programme chaussette normal (.co).

Concerning this see the menu:

[Activate-program menu](#)

These values are not editable in this window.

**Link**

Name of the active machine Link Programs.

**Keeping (Uses machine values)**

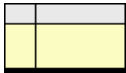
The setting can only be modified by Graphitron.

With management enabled:

The pre-existing setting is maintained. (for the sock counter indicated).

With management disabled:

The machine follows the programme set by Graphitron.

**Articles programmed in the "Link Programs". (Table)**

To this end, please see paragraph:

Navigating

**Edit single file.co concatenation settings****Modify the datum : Size / Programmed**

Access the edit window of the highlighted datum.

Before performing the procedure it is necessary ...

Press the field that you want to change the value (the field will highlight).

Press : **Size / Programmed** (Table)

Select the line of interest. (Article)

General sock-counter

In this window are displayed and is possible to alter the "General Socks-counter" setting values.
Programming is effected by Graphitron.

Obviously ...

The meaning of the various items is the same as that shown in the following menu:

General sock-counter

To this end, please refer to:

[General piece-counter menu](#)

In particular ...

- Programmed :
- Operation :

For details see: **Target**

For details see: **Type**

Settings

Parameters / Variable physical magnitudes



Target (Programmed)

Refer to the menu:

[General piece-counter menu](#)

Selection



Type (Operation).

Refer to the menu:

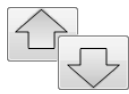
[General piece-counter menu](#)

Deepening

Example 1

If link program with 2 articles is active, each of them with a target=20, then each cycle produces 40 OK pieces.

If the general target is 400, it will be reached after ten cycles.



Link change settings

Link

OK

Baskets sock-counter

ENT

☐ Keeping

Programmed

Basket

(0-2)

Operation

☐ A

☐ B

☐ C

Article change

☐

Article	Size	Sti.	Ela-Yoyo	Programmed

Page 2

Baskets sock-counter

In this window are displayed and is possible to alter the "Baskets Socks-counter" setting values. Programming is effected by Graphitron.

Obviously ...

The meaning of the various items is the same as that shown in the following menu:

Baskets sock-counter

To this end, please refer to:

[Baskets piece-counter menu](#)

In particular ...

- Programmed :
- Operation :

For details see: **Target**

For details see: **Type**

Parameters / Variable physical magnitudes



Target (Programmed)

Refer to the menu:

[General piece-counter menu](#)



Type (Operation).

Refer to the menu:

[General piece-counter menu](#)



Basket

Enter 0, 1 or 2 in the field.

- 0 – No initial basket is established.
- 1 – The right-hand basket is established as the initial one.
- 2 - The left-hand basket is established as the initial one.

Enabling



Article change

With management disabled:

The Basket Changeover only takes place whenever the set target in the Programmed field is reached.

With management enabled:

Basket Changeover takes place at each changeover of the Sock Programme (.co). [See table].

Example 2

If link program with 2 articles is active, each of them with a target=20, then each cycle produces 40 OK pieces.

If the basket target is 40, the bag will be replaced at end of cycle.

If option Y is active, then: The bag will contain only one type of article.

Link change settings



Edit single file.co concatenation settings

Article

Mod.Stitch

Mod.Elastics

P

Programmed

0,00

T

Size

0,00

(1-8)

No active message

OK

F8

ESC

Path to reach the window - From the Main window press:

Space-E-E-Ent ► **Edit single file.co concatenation settings**

Please see the previous menu for the basic information.

These values are not editable in this window.

**Article**

Name of the "article" (Sock program ".co") part of the "Link Programs".
It is the current article, on which we are working.

**Mod.Stitch**

If the article has this option enabled, when the width of a stitch block is modified from the machine console, the same correction is automatically applied to all the stitch blocks of the same name for all the articles with this option enabled.

Y = The option is active.

**Mod.Elastics**

If the article has this option enabled, when the PYF value of a stitch block is modified from the machine console, the same correction is automatically applied to all the stitch blocks of the same name for all the articles with this option enabled.

Y = The option is active.

Parameters / Variable physical magnitudes**Enter the new value**

Access to the window ... [Numerical keyboard](#)

**Programmed**

Number of socks to be produced for the current article.

When the machine reaches the Programmed number of socks it will automatically activate the following program inserted in the "Active programs Link", and so on.

**Size**

Number of selected Size on the "Sock program" (Article).

Set the desired size.

Possible sizes: from 1 to 8

Pieces counter menu



Link list

Link Program

General sock-counter

Produced Target Type Rejects Partials ☐ Keeping

Baskets sock-counter

Produced Target Type Basket ☐ Keeping ☐ Article change

Article	Size	Sti.	Ela-Yoyo	Produced	Progr.	Change
---------	------	------	----------	----------	--------	--------

OK
ENT
+
-
ESC

Path to reach the window - From the Main window press:

Space-E-F ► **Link list**

The menu is enabled at the following conditions:

- A link programme is activated.

In this window are displayed the data relating to "Active Link Programs".

Through the menu is possible to ...

- Make changes to sock counting.

In practice:

In this window is possible to modify the value of the produced socks. [See table].

Sizes displayed

These values are not editable in this window.



Link

Name of the active machine Link Programs.



Program

Article in production.

Name of the "article" (Sock program ".co") part of the "Link Programs".



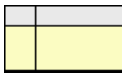
Partials

Function not handled.

At present ...

The function is only handled by the following models:

DONNA machines (single-cylinder models, for pantyhose).



Articles programmed in the "Link Programs". (Table)

For details see:

[Edit single file.co concatenation settings](#)

Navigating



Link modify

Modify the datum : Produced

Access the edit window of the highlighted datum.

Before performing the procedure it is necessary ...

Press the field that you want to change the value (the field will highlight).

Press : **Produced** (Table)

Select the line of interest. (Article)

See also ...

[Operating commands](#)



Produced

The control increments the parameter. / The command decrements the parameter.
The minimum variation is: 1 units.



Before performing the procedure it is necessary ...
Press the field that you want to change the value (the field will highlight).

Press : Produced (Table)
Select the line of interest. (Article)

Example 1

If link program with 2 articles is active, each of them with a target=20, then each cycle produces 40 OK pieces.

If the general target is 400, it will be reached after ten cycles.

If the quantities of pieces are adjusted, because they were found to be non-conforming, the system will re-work the defective article.

Link list



Link modify

Article

Size

Mod.Stitch

Mod.Elastics

Produced

ENT

Programmed

Article change

OK

F8

ESC

No active message

Path to reach the window - From the Main window press:

Space-E-F-Ent ► **Link modify**

Please see the previous menu for the basic information.

Sizes displayed

These values are not editable in this window.



Article

Name of the "article" (Sock program ".co") part of the "Link Programs".
It is the current article, on which we are working.



Size / Et cetera . . .

For details see:

[Edit single file.co concatenation settings](#)

Settings

Parameters / Variable physical magnitudes

Enter the new value

Access to the window ... [Numerical keyboard](#)




Produced

Valid items produced up until that time.

Further information is available in the chapter: [Commonly used keys](#) and/ or [Virtual keyboard](#) and/ or [Settings](#)

Management menu



Menu versions

Machine:	<div></div>	
Custom software version	<input type="text"/>	
System software version	<input type="text"/>	<input type="text"/>
Graphitron version	<input type="text"/>	

A MPP CAN versions

B YOYO CAN versions

C Motor driver versions

D SPYDER software version

E Board Drums Software Versions

F Driver versions

ESC

Path to reach the window - From the Main window press:

Space-G ► **Menu versions**

From this window you can access the menu for the display of various software Versions in machine, and other internal informations.

The information written in this window is very important, because they allow to know the level of "Software update" of the machine, which "GRAPHITRON version" is compatible, and then a series of data that may be required by the Lonati company in case of problems or requests to update.

Values of machine status

Machine:

This field shows the type (model) of machine.

System software version

Version of the Upgrade software (type "system"), it's the main software, usually common to the same type of machines.

This software is the most important, it must be compatible with all the other software of the machine (CAN, EDSP, GRAPHITRON, etc.).

Graphitron version

Version of the GRAPHITRON software (programming system) which is compatible with the machine software ("system software").

Custom software version

Version of the Upgrade software (type "custom" for machine Customizing).

The version presented here otherwise makes reference to the "system" software, that is the common part.

Any different "Custom" versions is associated to a single "System version".

Navigating

[A] MPP CAN versions

Display of versions of the various Software that equipped the various "command boards" for the Stepping motors (boards: "Fourstep", "Fourpyf", "Digistep", etc.).

Of each board is displayed the type (distinguishing letters) and the "Software version".

[B] YOYO CAN versions

Display of Software versions that equipped the various "YOYO motors" (the electronic control is integrated into the motor itself).

This motors are linked by "CAN Protocol" to the main logic boards.

[C] Motor driver versions

Display of the upgrade Software version of the "Motor drive control" board type ECODD15 (command for the main brushless motor).

This board is linked by "CAN Protocol" to the main logic boards.

[D] SPYDER software version

Display of Software versions that equipped the SPYDER sensors for the Yarn Sliding control (the electronic control is integrated into the sensor itself).

[E] Board Drums Software Versions

In this window are displayed the versions of the various internal Software subprograms.

[F] Driver versions

In this window are displayed the versions of the various internal Software subprograms.

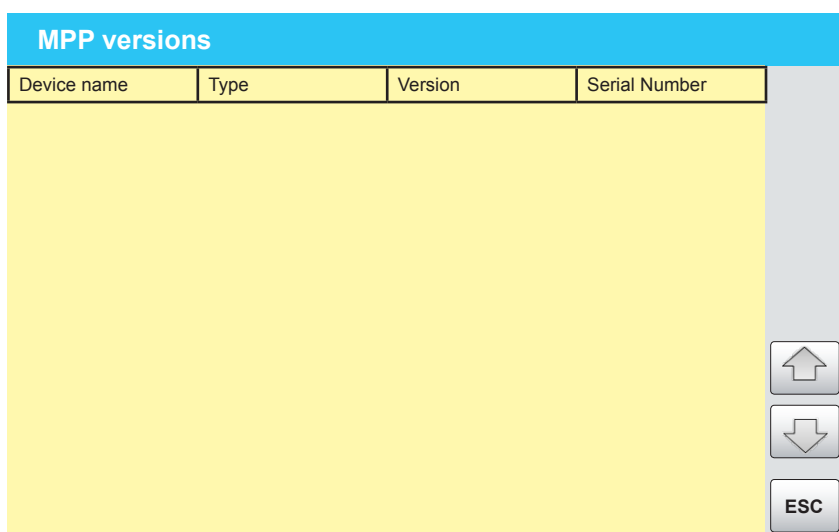
Reference

For further information, refer to the brochure:

For further information, refer to the brochure:

USB pen drive creation .

Machine software updating .



Path to reach the window - From the Main window press:

Space-G-A ► **MPP versions**

In this window are displayed the versions of the Software available on on each of the command boards for the "stepping motors" (linked by the CAN protocol) available on the machine.

he currently existing boards are of the type: Fourstep, Fourpyf, Digistep; in this window is displayed the type and the software version to which are updated all boards available on the machine.

These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

In this window is displayed a table with 3 columns; the "board" column indicates the number of the board, the "type" column indicates the type of board, the "version" column indicates the version to which is updated the board.

Use the [Large arrows] keys to move between the boards to view them all (change number and type and on the far right will appears the Software version).

Values of machine status

Board nn

Number of the board (is determined by CAN numbering).

Type FS

Type of the CAN board (FS = "Fourstep" type).

Version xx.xxx (x.x)

Version to which is updated the board selected.

Management commands

If the list exceeds the size of the window, a scroll bar appears.

[Esc]

Exit from the window and return to previous page.

Notice

Software management

The "Mpp CAN" software is stored, for example, on the boards "Fourstep" Pcb 3836, and you can load and activate as ".up" file ("4mpp... .up").
All electronics Board of the same type in general are updated at the same software version.

Note

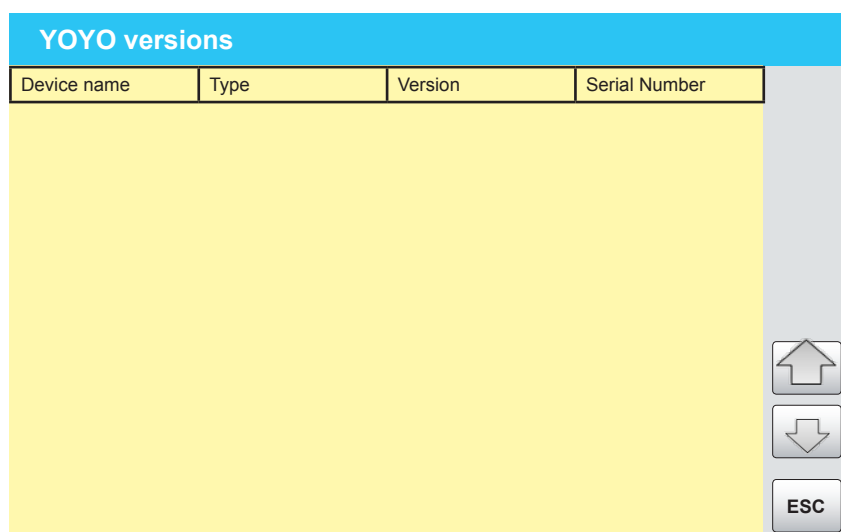


The "Fourstep" board can command only stepping motors, in maximum quantity of 4.
The "Fourpyf" board can command only PYF motors type "brushless" (PYF-2000), in maximum quantity of 4.
These 2 types of boards are equipped with the same software ("mppCAN....up").
The "Digistep" board can command a single stepping motor, but with many more options (current greater, encoder dedicated, LVDT, etc.).

Reference

For more information, refer to the manual:
See also the menu:

STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL .
[MPP numeration](#)



Path to reach the window - From the Main window press:

Space-G-B ► YOYO versions

In this window is displayed the version of the Software available on the on each of the command boards of the YOYO motors, devices linked by "CAN Protocol" to the main logic boards.

The electronic control is integrated into the motor itself.

The YOYO device is a "Yarn Tensioner" (Constant tension feeder): through a "Load cell" and a motor it maintains constant the tension with which the yarn is knitted.

This Tension value is programmable, through GRAPHITRON, as any "Stitch" or "Elastic" Zone.

These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

In this window is displayed a table with 3 columns; the "board" column indicates the number of the board, the "type" column indicates the type of board, the "version" column indicates the version to which is updated the board.

Use the [Large arrows] keys to move between the boards to view them all (change number and type and on the far right will appears the Software version).

Values of machine status

YOYO nn

Number of the board (is determined by CAN numbering).

Type Yo

Type of the CAN board (Yo = YOYO type).

Version xx.xxx (x.x)

Version to which is updated the board selected.

Management commands

[Esc]

Exit from the window and return to previous page.

[Large Arrows]

Scroll between all these types of CAN boards available on the machine.

Notice

Software management

The software on the "YOYO CAN" is present in YOYO motors, ad you can enter or activate as file ".up" ("yoyo... .up").

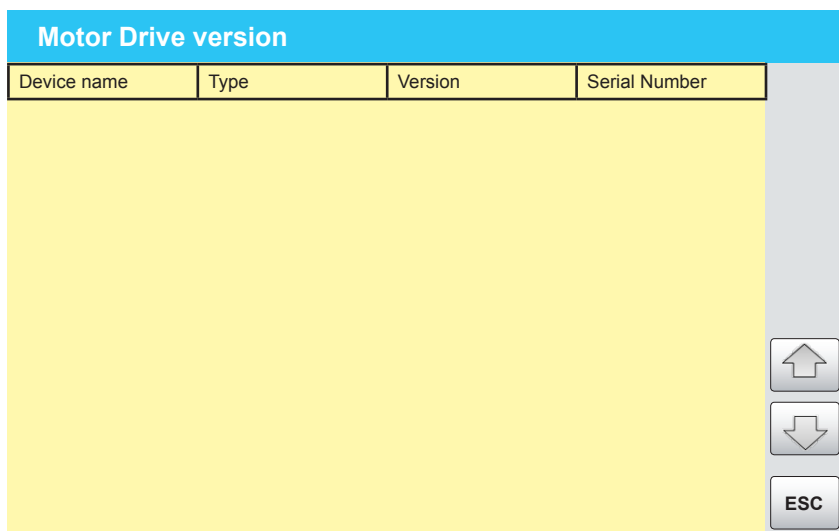
Reference

Furthers informations about the management of the "Motors in CAN" are available in

- Setup YOYO in CAN

Furthers informations are available in :

- STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL
- List of warnings, errors, alarms



Path to reach the window - From the Main window press:

Space-G-C ► **Motor Drive version**

In this window is displayed the version of the Software available on the "Motor drive control" board, when it's of type ECODD (Digital Motor drive linked by the CAN protocol to the logic boards Pcb 2007 / Pcb 2008).

These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

In this window is displayed a table with 3 columns; the "board" column indicates the number of the board, the "type" column indicates the type of board, the "version" column indicates the version to which is updated the board.

As the "Motor drive control" is only one, is useless to move with the [Large arrows] keys, the Software version that appears to the entry in the window is already that of the "Motor drive control" board.

Driver nn

Number of the board (is always "1").

Type FD

Type of the "Motor drive control" board (ED = ECODD type).

Version xx.xxx (x.x)

Version to which is updated the board selected.

Management commands

[Esc]

Exit from the window and return to previous page.

[Large Arrows]

Scroll between all these types of "Motor drive control" boards available on the machine (maximum is only one board).

Notice

Software management

The ECODD software is stored on the "Motor drive control" ECODD (Pcb 3832 + Pcb 3833) and you can load and activate as ".up" file ("edd_... .up").

Note



The production of machines equipped with the "Motor drive control" board of the type ECODD began in the year 2007.
The identification of the type of "Motor drive control" board mounted (RUNNER or ECODD) is automatic by the Software.

Reference

Further information about the management of the "ECODD motor drive in CAN" are available in

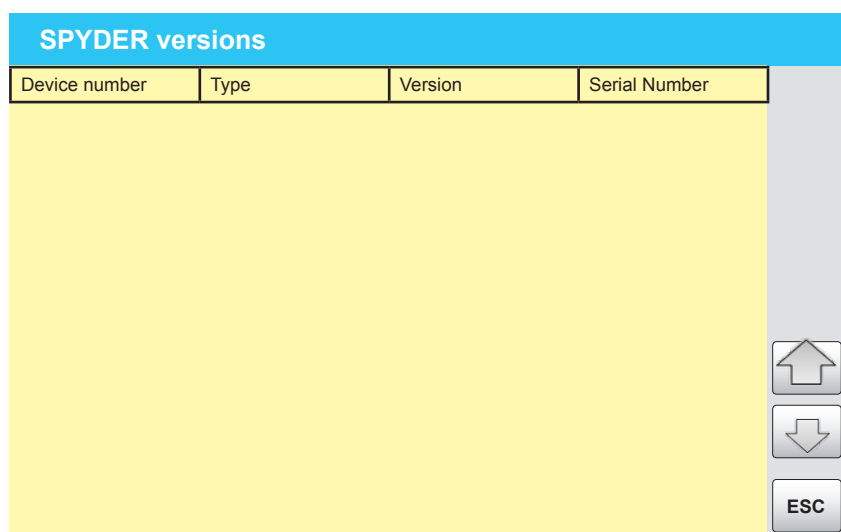
- STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL

- Management of the main Motor drive control in CAN

Further information are available in :

- STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL

- List of warnings, errors, alarms



Path to reach the window - From the Main window press:

Space-G-D ► SPYDER versions

In this window is displayed the Software versions available on the SPYDER sensors for the Yarns Sliding control, devices connected by the CAN Protocol to the logic of the machine.

In case of sensors updated all at the same level, in the window is displayed one version only.

In case of sensors with level of updated different, in the window are given the older version (minimum) and more new (maximum).

These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

When the sensors are updated at the same level appears the first window where is displayed a single version.

When the sensors are updated at different levels appears the second window where are displayed the minimum and maximum version found.

For a correct functioning, even if is not essential, is useful that all the sensors mounted are updated with the same version.

This software must be compatible with the machine software, otherwise is displayed an alarm message of compatibility.

SPYDER sliding sensors | Version : xxxx

Only version with which are updated sensors.

Minimum version : xxxx

Minimum version with which are updated sensors.

Maximum version : xxxx

Maximum version with which are updated sensors.

Management commands

[Esc]

Exit from the window and return to previous page.

Notice

Software management

The SPYDER software you can load and activate as ".up" file ("DFil... .up").

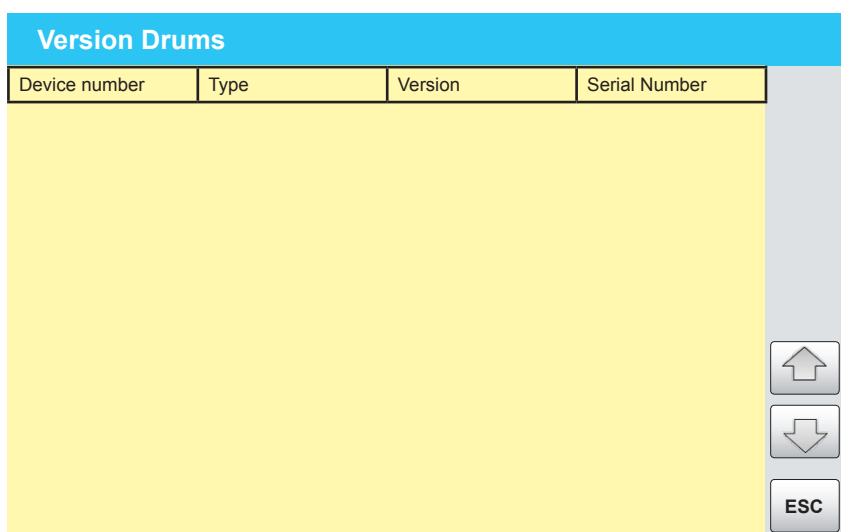
Reference

Many information about the meaning and the detailed rules for the modify of the various configuration parameters relating to the yarn Sliding management are available in:

- Yarns sliding

Further informations are available in :

- STOPS MANAGEMENT AND TROUBLESHOOTING MANUAL
- List of warnings, errors, alarms



Path to reach the window - From the Main window press:

Space-G-E ► **Version Drums**

In this window are displayed the versions of the various internal Software subprograms. These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

In the window are displayed headings (subprogram name) with on the right a shortened numerical (version).

This window allows the display only.

Management commands

[Esc]

Exit from the window and return to previous page.

Menu versions



Driver version	
Driver RT AXE	<input type="text"/>
Driver AXE	<input type="text"/>
Driver AP	<input type="text"/>
Driver CAN	<input type="text"/>
Driver ENC	<input type="text"/>
Driver INT IO	<input type="text"/>
Driver SPI IO	<input type="text"/>
Driver SERIAL	<input type="text"/>
Driver TAMB	<input type="text"/>
Kernel	<input type="text"/>

ESC

Path to reach the window - From the Main window press:

Space-G-F ► **Driver version**

In this window are displayed the versions of the various internal Software subprograms. These data are for the use of Dinema, could be required by the technical staff responsible in the case of assessments regarding the status of "software upgrade" of the machine.

Window content

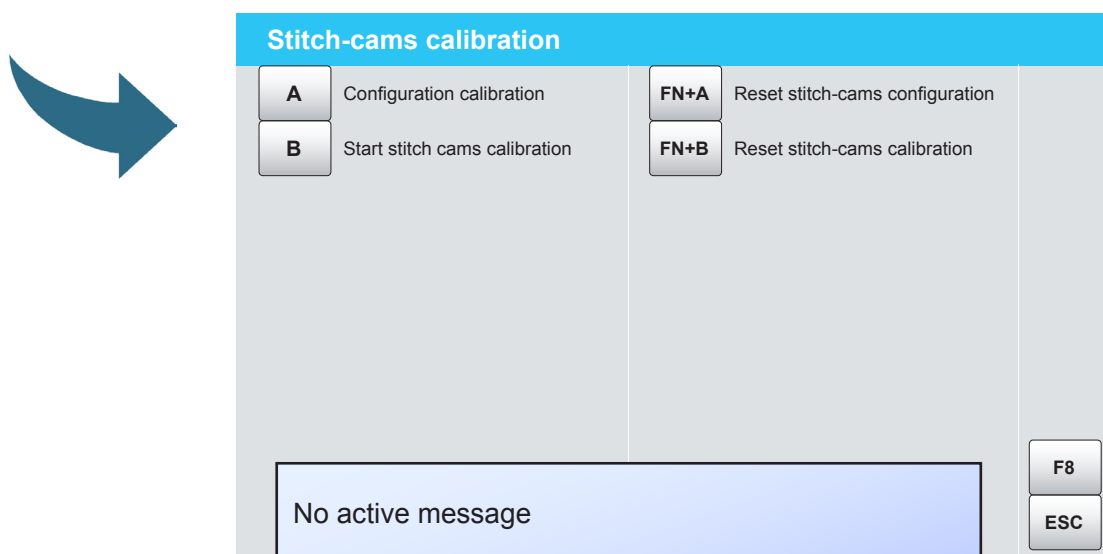
In the window are displayed headings (subprogram name) with on the right a shortened numerical (version).
This window allows the display only.

Management commands

[Esc]

Exit from the window and return to previous page.

Management menu



Path to reach the window - From the Main window press:

Space-I ► **Stitch-cams calibration**

In this menu is available the windows configuration concerning the the motorized Stitch Cams. This configuration menu is available only in machines with "Stitch cams" motorized.

For the normal materials tolerance and for the assembly procedures, may be necessary to perform a more precisely calibration, so that the "Knitting fabric" created by each "Yarn Feed" is equal.

This operation is performed by the "Self-calibration" procedure, acting on the value (in steps) set for each "Stitch motor" quota.

When the quantities of yarn absorbed by each "Yarn Feed" are equal, calibration for this quota (Set-point) is completed.

A

Configuration stitch cams calibration

Access to the "Yarnfingers choice" menu to use during the "Self-calibration" procedure.
Furthermore ... **The actual equipment must be indicated to the software.**
Upon completion of configuration, it is possible to move on to subsequent operations.

B

Position calibration

First refer to what specified for the previous entry.
Access to the Stitch cams calibration menu.

Operating commands

Fn+A

Reset stitch-cams configuration

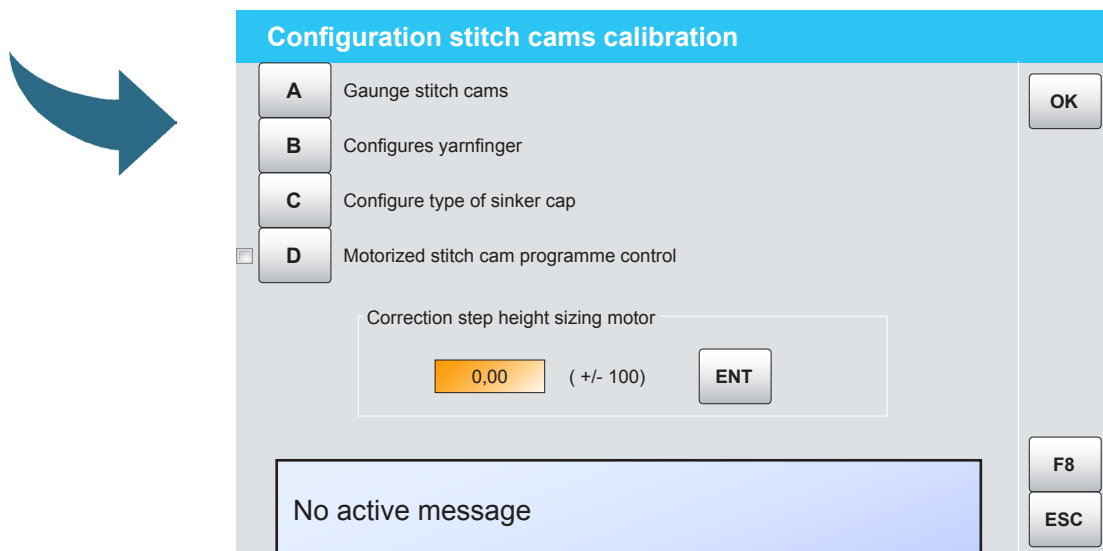
This command returns all the parameters entered in the menu (and submenus) to the initial default value.
Wait for the message: 38. 7.

Fn+B

Reset stitch-cams calibration

This command returns all the parameters entered in the menu (and submenus) to the initial default value.
Wait for the message: 38. 5.
After which ... The following message appears: 38. 0.
Delete the message by pressing F8.

Stitch-cams calibration



Path to reach the window - From the Main window press:

Space-I-A ► **Configuration stitch cams calibration**

The actual equipment must be indicated to the software.

Furthermore ... Through the menu is possible to ...

- Enable/ Disable the management of the following function:
Motorized stitch cam programme control .
- Enter an offset value for the following device:
Sizing motor .

D**Motorized stitch cam programme control**

If an article is re-encoded using a recent version of Graphitron, the motorized stitch cam line is compiled.

Models equipped with: Stitch-cams not motorized

With management enabled:

Active management is ticked.

Machines with pneumatic stitch cams reject the programme.

The machine will report the situation via a message. (50. 5)

With management disabled:

The machine accepts the programme.

The machine will report the situation via a message. (23. 28)

ENT**Correction step height sizing motor**

For special yarns, it is possible to vary the cylinder height.

The value is only valid for the current procedure. (Stitch-cams calibration)

When you enter the window the current parameter value is shown.

The value is expressed as motor steps.

The value will be added to preset values (for the procedure).

Access to the window ... [Numerical keyboard](#)

OK**Confirm the data entered.**

Press to confirm the settings.

This command is used to save the values defined in the menu. (and/ or **Submenu**)

Wait until completion of saving in the Flash memory.

A**Configure stitch cam gauge**

The type of Cam mounted depends on the Machine Gauge (combination of Cylinder Diameter and Needles Number).

This parameter affects the command the motor must receive to attain the value required by programming.

B**Configures yarnfinger**

In this window it is possible to choose the Yarnfingers used as the "first" and as the "second" for each "Yarn Feed" during the procedure of "Stitch cams Self-calibration".

C**Configure type of sinker cap**

Menu for selection (for some models only)

The actual equipment must be indicated to the software.

Configuration stitch cams calibration



Configure stitch cam gauge

Gauge:

<input type="checkbox"/> A	Gauge 9
<input type="checkbox"/> B	Gauge 14
<input type="checkbox"/> C	Gauge 22
<input type="checkbox"/> D	Gauge 9A
<input type="checkbox"/> E	Gauge COLLANT 14
<input type="checkbox"/> F	Gauge MEDICAL 22

ESC

Path to reach the window - From the Main window press:

Space-I-A-A ► **Configure stitch cam gauge**

The type of Cam mounted depends on the Machine Gauge (combination of Cylinder Diameter and Needles Number).

This parameter affects the command the motor must receive to attain the value required by programming.

In this window is possible to set the type of Motorized Stitch cams with which is prepared the machine and therefore the type of "Motorized Stitch cams" operation.

The software, according to this parameter, performs the proper command to the motors.

This Setup option is a constructive data: is set during the assembly cycle, and is normally never modified.

Settings

Via the relevant command select the desired setting.

The other options are automatically excluded.

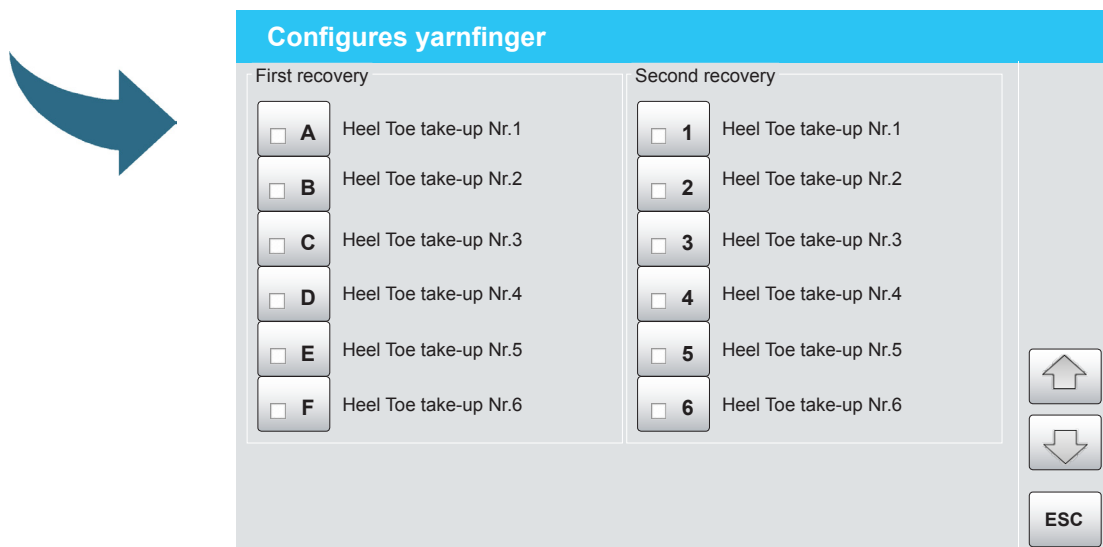
The feedback flag is inside the key icon.



Gauge:

Ensure that the type of device selected is that present in the machine.

Configuration stitch cams calibration



Path to reach the window - From the Main window press:

Space-I-A-B ► Configures yarnfinger

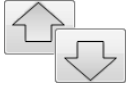
This menu covers several pages.

The page sequence is cyclical.

In this window it is possible to choose the Yarnfingers used as the "first" and as the "second" for each "Yarn Feed" during the procedure of "Stitch cams Self-calibration".

The "First" Yarnfinger enters together with the "Second" to help start the stitch, it leaves subsequently and only the "Second" Yarnfinger remains activated, which is the one used for Self-calibration.

This configuration menu is useful if that the 4 Yarnfingers (one for Feed) used for the "Self-calibration" procedure use the same Yarn, to see that the knitting fabric produced is equal.



The keys select the column.

Displays the previous page. / Display the next page.

Selection

The menu may vary depending on machine model.

Via the relevant command select the desired setting.

The other options are automatically excluded.

The feedback flag is inside the key icon.



Yarnfingers choice

Select the yarn fingers according to the article to be produced.

Select the device by touching the corresponding letter/ number.

Configuration stitch cams calibration



Configure type of sinker cap

Type of sinker cap:

<input type="checkbox"/> A	High speed
<input type="checkbox"/> B	Terry knit

ESC

Path to reach the window - From the Main window press:

Space-I-A-C ► **Configure type of sinker cap**

Menu for selection (for some models only)

The actual equipment must be indicated to the software.

Selection

Via the relevant command select the desired setting.

The other options are automatically excluded.

The feedback flag is inside the key icon.

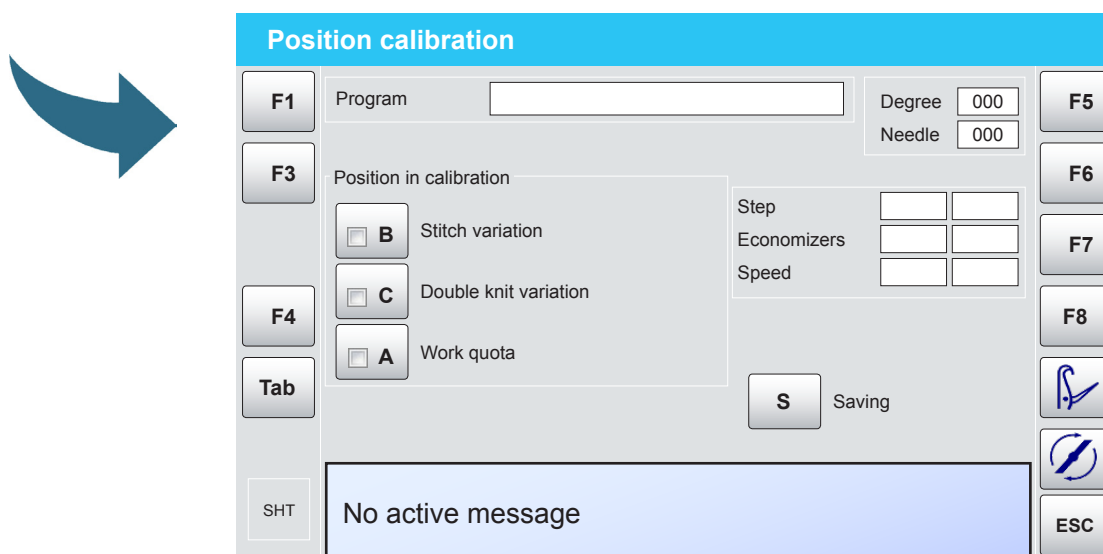


Type of sinker cap:

Select the device by touching the corresponding letter/ number.

Ensure that the type of device selected is that present in the machine.

Stitch-cams calibration



Path to reach the window - From the Main window press:

Space-I-B ► **Position calibration**

Access to the menu requires the machine to be in the following status:

Machine on hold at Step Zero.

Perform calibration on completion of mechanical resetting.

On entering this window you access a "Testing program". (Programme that tests the operation of the device.)

The chain is specific for current calibration.

Each stitch cam has 3 work quotas (Set-point) for the knitting fabric.

The adjustment must be made for each height.

With a special instrument measure the how much yarn is absorbed on each "Yarn Feed".

When the quantities of yarn absorbed by each "Yarn Feed" are equal, calibration for this quota (Set-point) is completed.

The adjustment must be made for each device.

Otherwise is displayed the error: 38. 3.



Drums warming movement

This icon indicates that: The warming is in progress.
The icon appears in the reserved area of the menu. (**SHT**).
No adjustment is possible during operation.
Wait until the end of the operation.
When this is completed, the icon disappears.

Concerning this see the menu:
Please refer to point:

[Main Window](#)

10) .

Operating commands



Saving

Changes are stored.
When you press the key appears the message: 38. 1.
Wait for the message: 38. 2.



Resetting

In case the user prefer exit the procedure is also available the zeroing that brings the machine in the normal zero condition.
The test programme remains enabled
The saved values remain stored.

For basic information, refer to:

Mechanical Adjustments (manual).

The Test programme performs a sequence of operations that allow the operator, after block of the progress of the cycle, the entry in the Modify window on the share to adjust.

- 1)** Move the machine to the end of cycle.
Enter the menu.
- 2)** Press F1 to deactivate Chain Stop.
Start the machine. = Press the key: RUN .
Since function F4 is active, the machine will stop at the next block.
Therefore: With machine stopped ... Activate F1.
- 3)** Start the machine. (**normal rotation of the cylinder**).
With a special instrument measure the how much yarn is absorbed on each "Yarn Feed".
- 4)** Go to the menu for modifying.
For access to the menu, press: B / C / A .
Setting procedure.
The adjustment must be made for each device.
When the quantities of yarn absorbed by each "Yarn Feed" are equal, calibration for this quota (Set-point) is completed.
- 5)** Press [Esc] to exit. Save with [S].
The adjustment must be made for each height.
Repeat from point ... 4).
After which:
Stop the machine.
Go to point ... 6).
- 6)** Heel and toe stitch cam (**reversed rotation of the cylinder**).
Repeat from point ... 2).

In this case:
The adjustment refers to the device: Heel and toe stitch cam .
Adapt yarn consumption to the other feeds.
- 7)** Press [Esc] to exit. Save with [S].

Position calibration



Position adjustment

Motor calibration

☐ **A** Heel and toe stitch cam

☐ **B** Stitch cam feed 1

☐ **C** Stitch cam feed 2

☐ **D** Stitch cam feed 3

☐ **E** Stitch cam feed 4

Speed

Tenths

Steps

↑

↓

F5

F6

F7

F8

ESC

No active message

Path to reach the window - From the Main window press:

Space-I-B-A...C ► **Position adjustment**

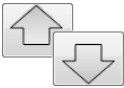
By accessing this menu the user is already in a "Testing program", where the "Stitch cams" are taken to a preset position and has already been product knitting fabric with all the "Yarn Feeds". Please see the previous menu for the basic information.



Motor calibration

Select the device by touching the corresponding letter/ number.
The other options are automatically excluded.
The adjustment must be made for each device.

Parameters



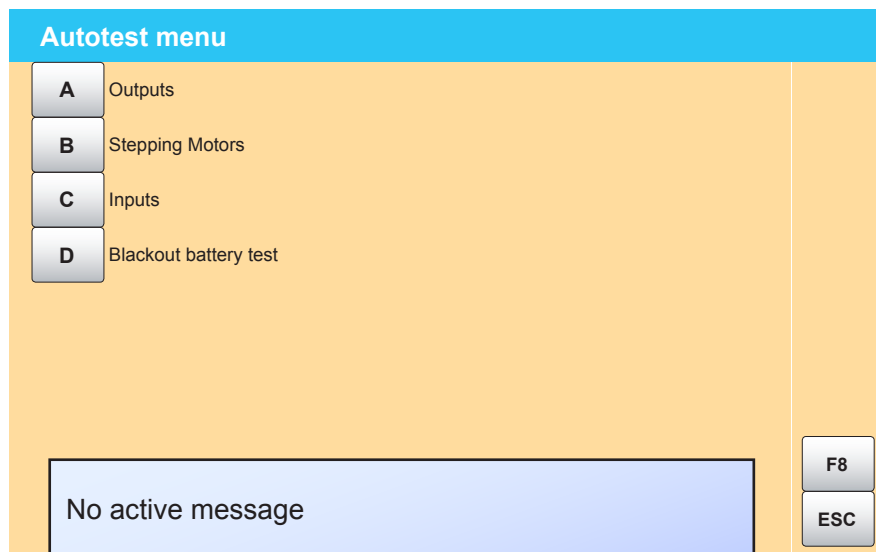
Steps

With the Large Arrows keys modify the quota in Steps on Stitch motor previously selected (increasing this steps value the Knitting fabric becomes more close).
By varying the value in "Steps", automatically also varies the quota in "10ths" (it's the same data displayed in 2 different forms).

Enclosure

Linux - DC88X and DC880X : Autotest menu

General menu



Path the reach the window - From the Main window press:

Space-D-A ► **Autotest menu**

This section contains the menus that can be used to check the inputs, outputs and operation of some devices.

This menu is used to verify the actuators and the ("output") signal sent.
The solenoid valves (chain codes) and stepping motors act as actuators.
This menu can be used to check the sensor signal (inputs or stops).

Mono-Actuators diagnostic

Refer to the menu:

Mono-Actuator diagnostic menu

Furthermore ...

In the event of a power failure (blackout), the machine saves the data of the current sock cycle (hibernation).

La procédure (automatique) de black-out garantit la sauvegarde des données de la machine (état, position, etc.) grâce à des batteries tampon.

This menu allows the following operations:

Manual check of the battery state.

In any case ...

A test carried out automatically by the software check the integrity of this battery (residual charge).

A

Manual commands menu

Access window to the various Self-Test menu, where, through some manual command, you can verify the functioning of all the "outputs" available in the machine.

B

Step motors menu

Access window to the Self-Test menu, where, through some manual command, you can verify the movement of the motors.

C

Autotest of inputs

In this window are listed all the measurable machine inputs, with on the right side the physical status of the input.

D

Blackout battery test

An efficient Test of the Back-Out Batteries is carried out by pressing this key.

After which ... Await the outcome of the operation.

In case the battery charge had been exhausted this message warns the user, which will then replace the battery.

The replacement does not entail any loss of data.

Between a test and the next must take a minimum time set in the Software.

Otherwise: The unavailable item is displayed in grey.

A message will indicate the residual waiting time.

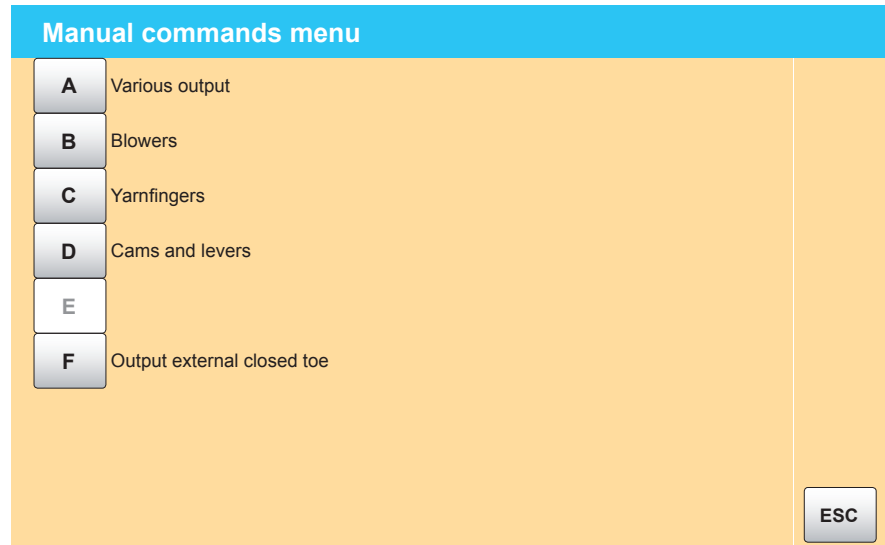
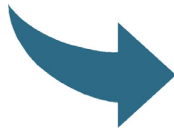
For the most important movements, the actuator is controlled by one/ two sensors.

This is very interesting for the user, as by activating the output (or motor) you can verify the change of status of the associated input and the proper device movement.

The sensor is a switch that is opened (or closed) by a physical dimension.

- **Green Led** = Input to ground (0 Vdc)
- **Red Led** = input is NOT to Ground

Autotest menu



Path the reach the window - From the Main window press:

Space-D-A-A ► **Manual commands menu**

First consult the information contained at the start of the section.

Access window to the various Self-Test menu, where, through some manual command, you can verify the functioning of all the "outputs" available in the machine.

Access to the menu/ submenu, requires the machine to be in the following status:

Machine stopped.

However, we recommend to move to Step Zero.

This menu can be used to move the actuators.

In this case ... The solenoid valves (chain codes) act as actuators.

This menu is used to verify the actuators and the ("output") signal sent.

This menu can be used to check the sensor signal (inputs or stops).

See also the menu:

[Autotest of inputs](#)

Navigating

Access to the menu for test activation of the outputs machine (generally commands for Solenoid valves) of the type specified.



Autotest various outputs



Blower autotest



Autotest yarnfinger outputs



Cam and lever autotest



Autotest outputs external closed toe

Models equipped with: Seaming Robot

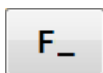
This command can be used to access a window for output signal verification.

The menu is specific for the device/mechanical unit.

Operating commands

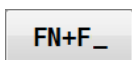
Remember that:

For any actuator at the exit from the Autotest restores the initial condition.



Inching mode

The output stays up as much time as you press the key.



Bistable mode

The output will go up by pressing the key and will stay up, until you press the key the second time.

Sizes displayed



Proximity

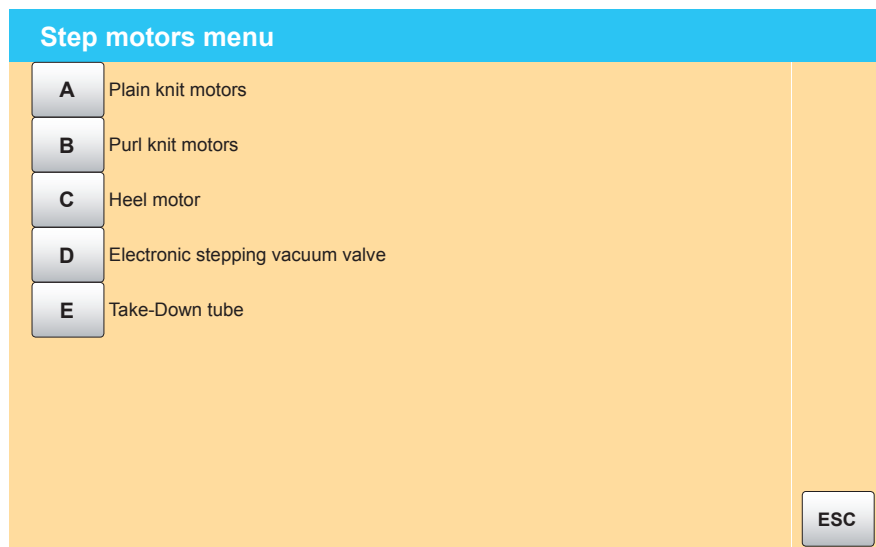
For the most important movements, the actuator is controlled by one/ two sensors.

At the right of the output name is shown the current status of input associated.

To this end, please see paragraph:

[Legend for ... Autotest menu](#)

Autotest menu



Path the reach the window - From the Main window press:

Space-D-A-B ► **Step motors menu**

First consult the information contained at the start of the section.

Access window to the Self-Test menu, where, through some manual command, you can verify the movement of the motors.

Access to the menu/ submenu, requires the machine to be in the following status:

Machine stopped.

However, we recommend to move to Step Zero.

This menu can be used to move the actuators.

In this case ... The stepping motors act as actuators.

This menu is used to verify the actuators and the ("output") signal sent.

This menu can be used to check the sensor signal (inputs or stops).

To this end, please see paragraph:

[Legend for ... Autotest menu](#)

See also the menu:

[Autotest of inputs](#)

Access to the menu for test activation of the outputs machine (generally commands for Solenoid valves) of the type specified.

Remember that:

For any actuator at the exit from the Autotest restores the initial condition.

A**Plain knit motor autotest**

Self-Test menu, where, through some manual command, you can verify the movement of the motor.

B**Purl motor autotest**

For further information, refer to the item:

[Plain knit motor autotest](#)

C**Heel size motor selftest**

For further information, refer to the item:

[Plain knit motor autotest](#)

D**Autotest VPE**

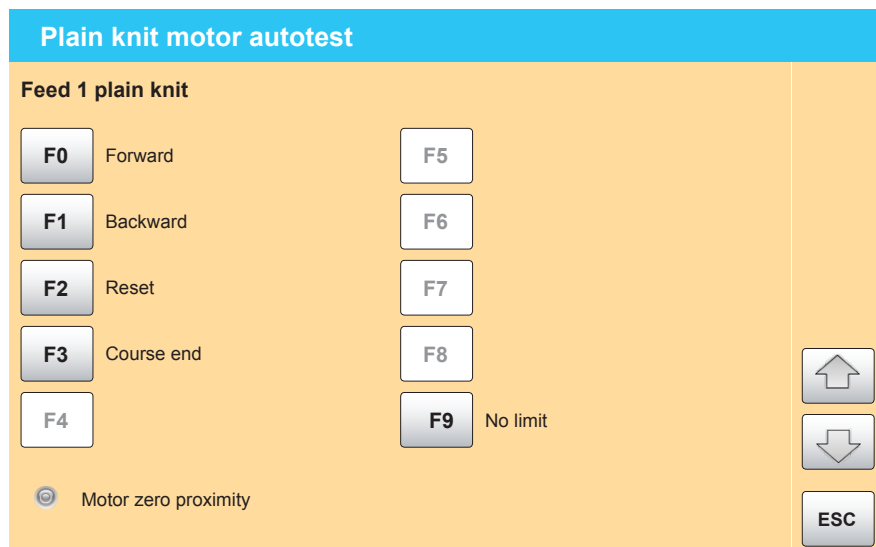
In this window it's possible to check the movement of "Stepping motor" concerned the "Electronic vacuum valve" (VPE) through the direct execution of some commands.

E**Autotest MPP**

For further information, refer to the item:

[Plain knit motor autotest](#)

Step motors menu



Path the reach the window - From the Main window press:

Space-D-A-B-A ► **Plain knit motor autotest**

Space-D-A-B-B ► **Purl motor autotest**

Space-D-A-B-C ► **Heel size motor selftest**

Space-D-A-B-E ► **Autotest MPP**

First consult the information contained at the start of the section.

Self-Test menu, where, through some manual command, you can verify the movement of the motor.

Access to the menu/ submenu, requires the machine to be in the following status:

Machine stopped.

However, we recommend to move to Step Zero.

Remember that:

For any actuator at the exit from the Autotest restores the initial condition.

F0

Forward

Each time the key is pressed ...

The motor increases by a preset step value.

The preset value is: + 20 .

F1

Backward

Each time the key is pressed ...

The motor decreases by a preset step value.

The preset value is: - 20 .

F2

Reset

When this key is pressed ... The motor is moved to Start of stroke.

In practice: A device reset cycle is carried out.

When the sensor detects the presence the LED (virtual in the window) comes on (turns green).

F3

Course end

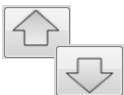
When this key is pressed ... The motor is moved to End of stroke.

In practice: The motor moves on to the preset value.

Each motor has its own end-of-stroke level.

end of stroke value

Plain knit motors	=	600
Purl knit motors	=	600
Heel motor	=	600
Take-Down tube	=	6500



Motor ... Plain / Rib , Feed N

Device number

Select the device. (Increases / decreases the value.)

This menu covers several pages.

The page sequence is cyclical.

Displays the previous page. / Display the next page.

Enabling

F9

No limit

With management disabled:

The motor does not move below Zero and beyond the End of Stroke.

The machine complies with the set software limits.

With management enabled:

The motor has the possibility to move beyond the limits (below Zero and Over Stroke), if the mechanical permits.

This function is used by mechanical engineers to perform some functional tests.

Sizes displayed



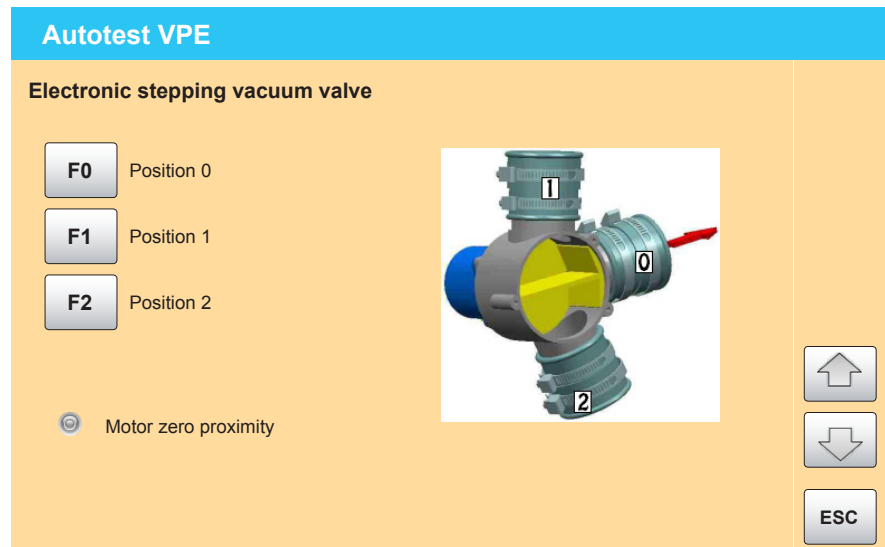
Motor zero proximity

When the sensor detects the presence the LED (virtual in the window) comes on (turns green).

To this end, please see paragraph:

[Legend for ... Autotest menu](#)

Step motors menu



Page 1

Path the reach the window - From the Main window press:

Space-D-A-B-D ► **Autotest VPE**

First consult the information contained at the start of the section.

Access to the menu/ submenu, requires the machine to be in the following status:

Machine stopped.

However, we recommend to move to Step Zero.

In this window it's possible to check the movement of "Stepping motor" concerned the "Electronic vacuum valve" (VPE) through the direct execution of some commands.

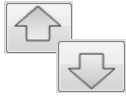
Furthermore ...

In this window it's possible to check the movement of "Stepping motor" concerned the "Electronic vacuum valve Closed Toe" (VPE-CTE-EXT) through the direct execution of some commands. The device is present for Closed Toe models only. (Models equipped with: Seaming Robot).

Remember that:

For any actuator at the exit from the Autotest restores the initial condition.

Window management



VPE / VPE - External Closed Toe

VPE = Valvola parzializzatrice elettrica (VPE) / Stepping vacuum valve

Select the device.

Displays the previous page. / Display the next page.

The page sequence is cyclical.

Sizes displayed



Motor zero proximity

When the sensor detects the presence the LED (virtual in the window) comes on (turns green).

To this end, please see paragraph:

[Legend for ... Autotest menu](#)

Reference

For further information see also:

[Manual EV](#)

[Quick menu](#)

[Fan contactor setup](#)

[General setup external closed toe](#)

Operating commands

Page 1

F0

Position 0

In this position the valve is brought to the position of "Suction closed".

F1

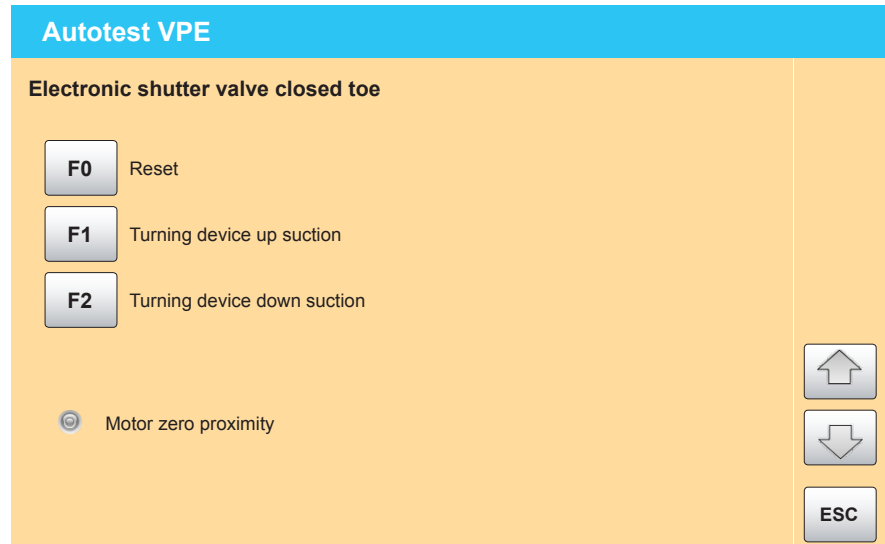
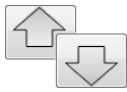
Position 1

In this position the valve is brought to the position of "Suction from the ANTITWIST".

F2

Position 2

In this position the valve is brought to the position of "Suction from the sock ejection hood or DREAM".



Page 2

Operating commands



Reset

When this key is pressed ... The motor is moved to Start of stroke.

In practice: A device reset cycle is carried out.

When the sensor detects the presence the LED (virtual in the window) comes on (turns green).



Turning device up suction

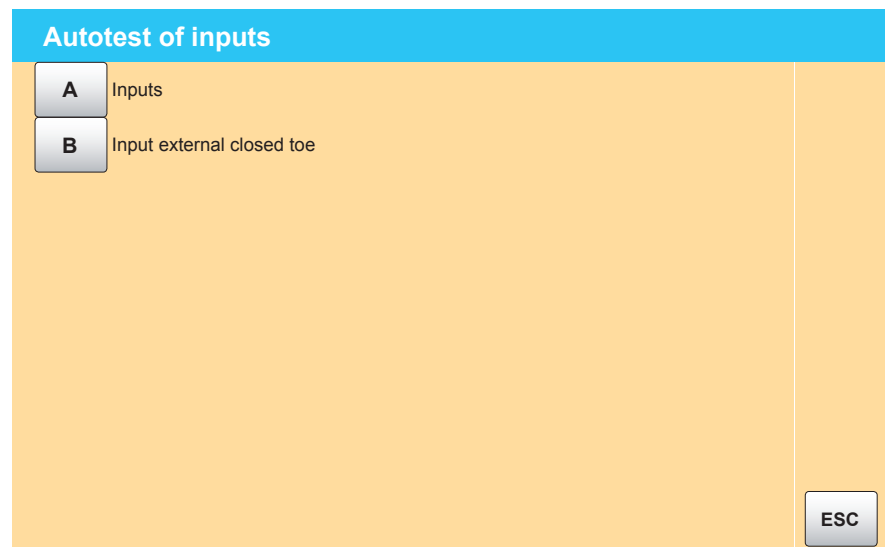
In this position the valve is brought to the position of Suction from the device indicated.



Turning device down suction

In this position the valve is brought to the position of Suction from the device indicated.

Autotest menu



Path the reach the window - From the Main window press:

Space-D-A-C ► **Autotest of inputs**

First consult the information contained at the start of the section.

In this window are listed all the measurable machine inputs, with on the right side the physical status of the input.

This menu can be used to check the sensor signal (inputs or stops).

Access to the menu/ submenu, requires the machine to be in the following status:

The access is always allowed.

**Autotest of inputs**

This command can be used to access the window in which you can check the input signals.

**Input Autotest external closed toe**

Models equipped with: Seaming Robot

This command can be used to access the window in which you can check the input signals.

The menu is specific for the device/mechanical unit.

**Proximity**

To this end, please see paragraph:

[Legend for ... Autotest menu](#)

