

User manual

TX 2"/12-CS
with Electronic EL7B

Rev.2

1 Revisions table

Version No.	Date	Revision description
0	22/06/2022	Updated to Electronic EL7B
1	04/07/2023	Graphics updates, internal components updated
2	21/11/2025	Updated schematics

2 Summary

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3 Technical specifications

	TX 2"/12-CS
Printing method	two-sided printing (front and back) direct thermal and thermal transfer
Printing mode	strip
Printing speed	up to 200 mm/s
Resolution	12 dot/mm - 640 dot/line - 300 dpi
Printing area	up to 54x1000 mm
Media types	continuous strips
Media sizes	width 15 to 60 mm length 6 to 500 mm
Media roll sizes	width 15 to 60 mm external diameter up to 220 mm internal diameter 40.5 mm
Thermal ribbon width	da 20 a 60 mm
Thermal ribbon sizes	length up to 600 m internal diameter 25.4mm
Display	alphanumeric LCD, 16 characters x 2 lines, 8 colors
Keypad	membrane, 10 buttons
Sensors	media end and sync, thermal ribbon end, printhead temperature
CPU	32bit RISC 40MHz
Memory	64MB flash - 32MB RAM
I/O signals	3 optoisolated signals
Communication ports	RS232/422, USB, Ethernet
Power requirements	90/260 VAC 50/60 Hz
Fuses	mains 2xT2A
Operating temperature and humidity	0/40°C - 10/95% non-condensing
Storage temperature	-20/60°C
Sizes and weight	405x180x465mm (HxWxD) - 15Kg

4 Printing media description

Media specifications

materials	polyamide nylon, polyester and satin
thickness	0.05 ÷ 0.2 mm

Thermal ribbon specifications

thickness	4.5 ÷ 6 µm
internal diameter	25.4 mm
width	20 ÷ 60 mm
length	600 m
inked surface	external

Store labels and ribbons in a dry place at a temperature below 40°C.
Avoid exposure to sunlight.

5 Package contents

Check if the content of the package is the following:

- **italora** printer model **TX 2"/12-CS**
- power cable
- RS232 serial cable
- USB cable
- 6 poles DIN connector

6 Main features

These printers offer two-sided high print quality (front and back) with the ability to print only on one side (front) simply by lifting up the bottom printhead.

It's possible to save up to 26 formats in flash memory.

They support printing, through XY positioning, of:

- fixed and variable texts (26+12 preloaded fonts), counters and date/time fields via internal RTC
- barcode
- programmable graphics and rectangles, lines and shaded areas

There is also the possibility to add fonts and update the firmware through PC.

There are some options available such as:

- cutter & stacker unit
- Pick & Place interface with optoisolated signals
- ETIK graphical label editor for Windows

7 Initial inspection

Proceed with print media and ribbon loading referring to the “Thermal ribbon replacement” and “Print media replacement” chapters.

Connect the printer to a computer and to the power and turn on the printer using switch #103 on the rear panel (see chapter “General description”).

The LCD will light up white: this means the printer is ready.

Press the print key #1 (see chapter “General description”) to print a test label with the main parameters and information of the printer.

By sending data from a computer, a label will be printed.

Press the print key #1 to reprint the last label sent.

The printer stores the size and transparency values of the media type in use.

If the type of print media is changed, refer to the chapter “Print media format setup”.

8 Print media format setup

The printer stores the format and transparency values of the print media.

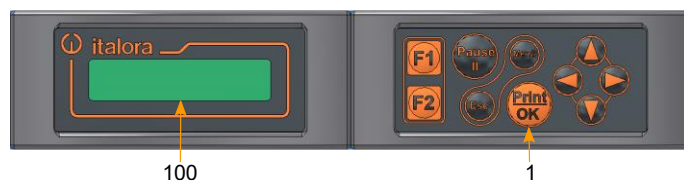
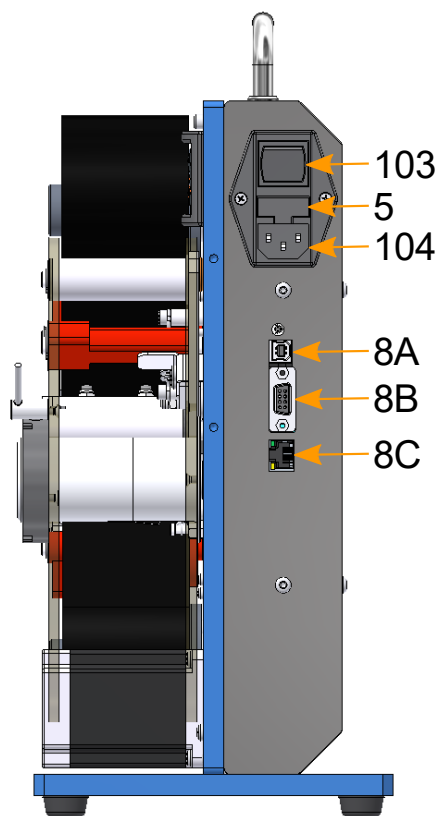
If the type or size of print media is changed, it is necessary to perform the following procedure to update the stored parameters:

- Turn off the printer and check that the print media is correctly positioned under the photosensor, as indicated in the chapter “Print media replacement”.
- Turn on the printer while holding down the print button #1 (see chapter "External description"). A few blank labels will be output as the printer reads the new transparency values.

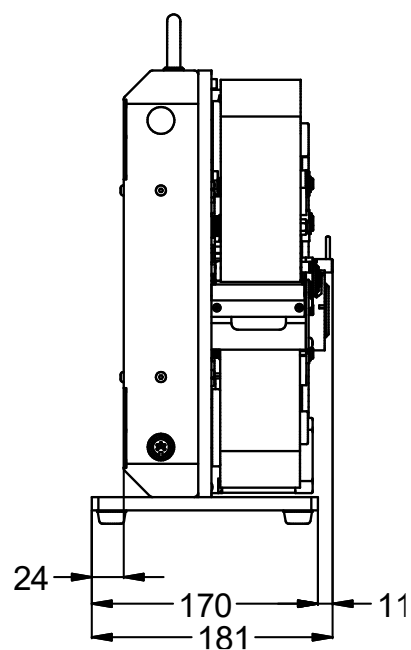
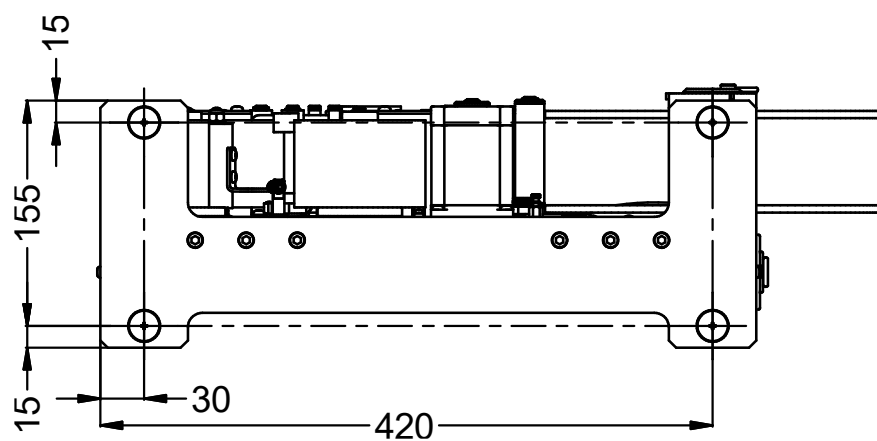
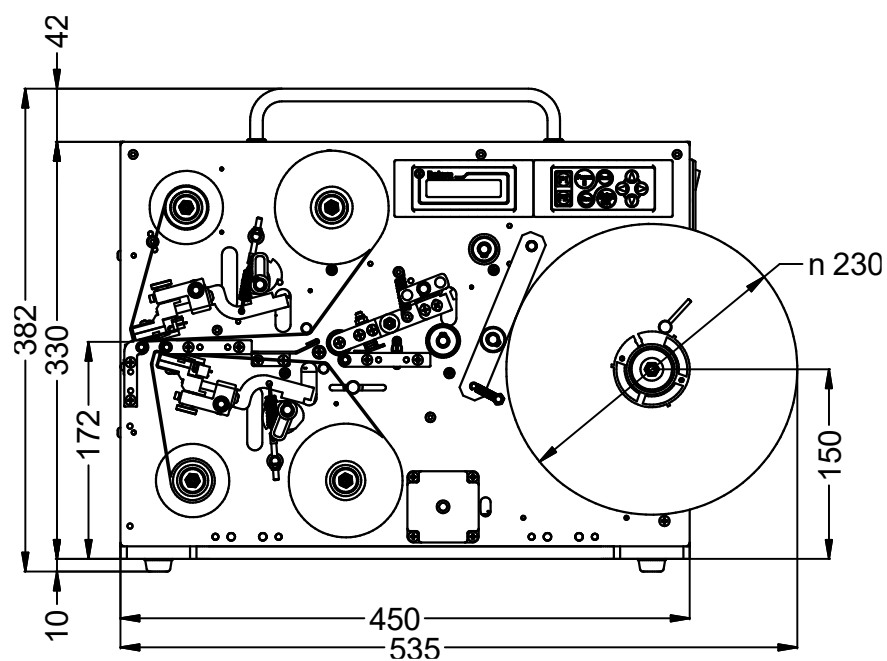
At the end of the procedure the printer will return to normal operating conditions, with white LCD.

For more information about the print media that can be used on these printer models, refer to the chapter “Printing media description”.

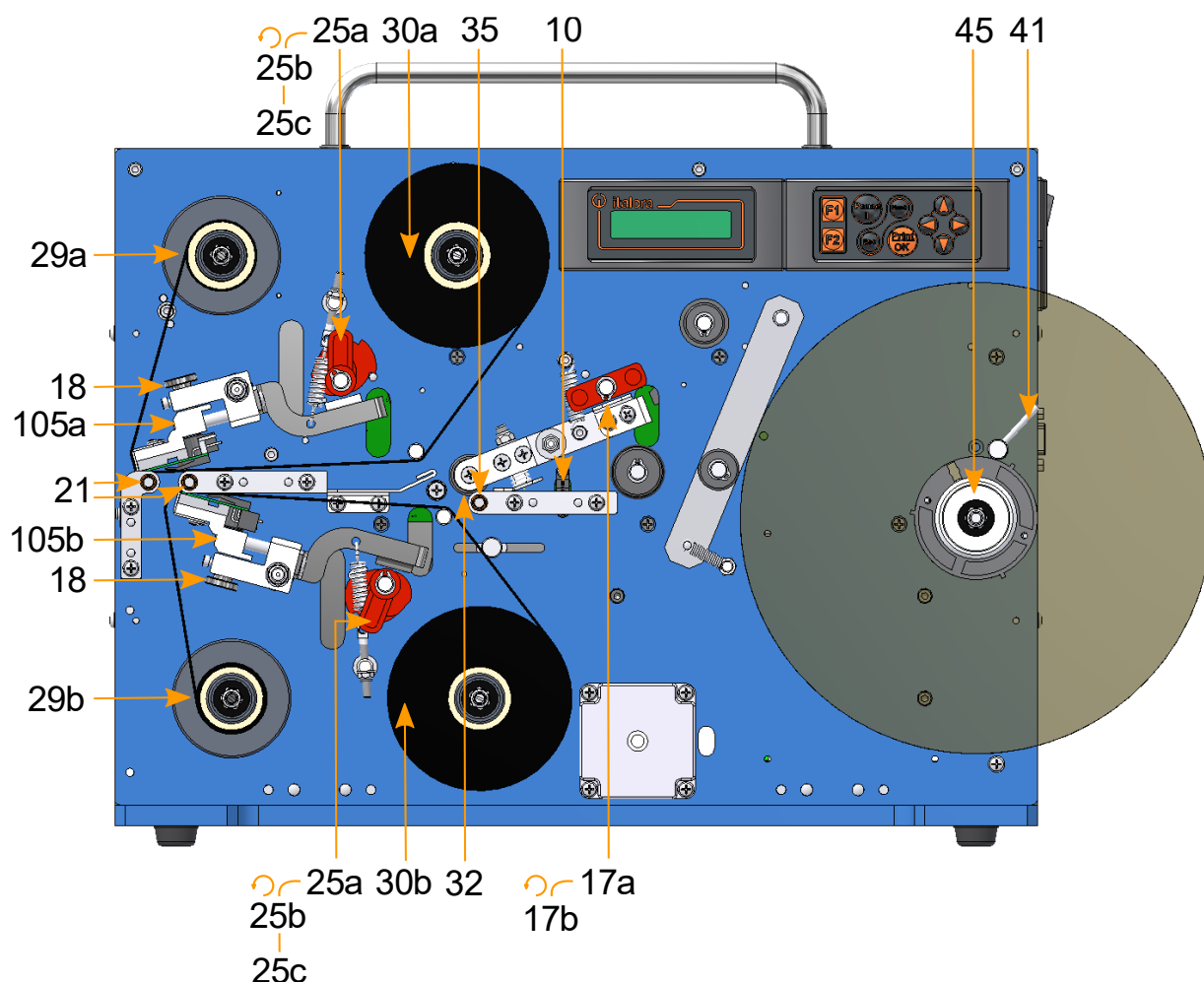
9 General description



- 1 print button
- 5 2x T2A fuse (main)
- 8A USB 2.0 type B port
- 8B DB9 serial port
- 8C RJ45 Ethernet port
- 100 display
- 103 main switch
- 104 IEC C14 power plug

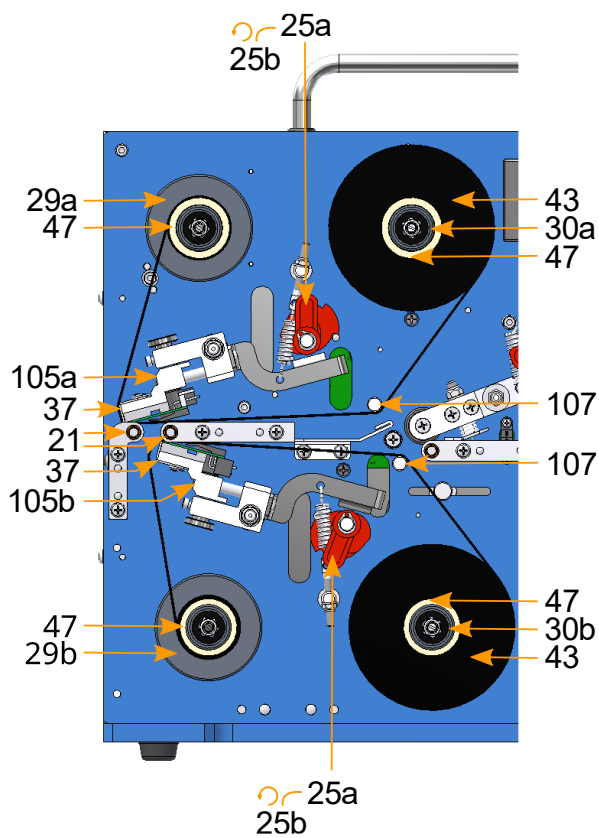


10 Main compartment description



- 10 media end and sync fork photosensor
- 17 pressure roller position lever
 - 17a working position
 - 17b rest position
- 18 printhead position adjustments
- 21 printing rollers
- 25 printhead position levers
 - 25a working position
 - 25b rest position
 - 25c cleaning position
- 29a front thermal ribbon rewinder
- 29b back thermal ribbon rewinder
- 30a front thermal ribbon stock
- 30a back thermal ribbon stock
- 32 pressure roller
- 35 driving roller
- 41 flange lock/unlock lever
- 45 print media stock
- 105a front printhead assembly
- 105b back printhead assembly

11 Thermal ribbon replacement



Remove the used roll, remove the cardboard core #47 from the bobbin #30 and insert it on the rewinder #29. Lift the printhead #105 from the printing roller #21 by rotating the lever #25 in position #25b.

Insert the new ribbon roll #43 onto the ribbon stock #30 taking care to slide the ribbon underneath the transmissions #107 and #37 until reaching the rewinder #29. Attach the tape to the cardboard tube #47 using an adhesive media.

Lower the printhead assembly by moving lever #25 to working position #25a.

12 Print media replacement

Remove the flange #41, remove the empty media roll and insert a new one onto the roller #45. Reassemble the flange onto the roller #45 pushing it tightly against the side of the media roll.

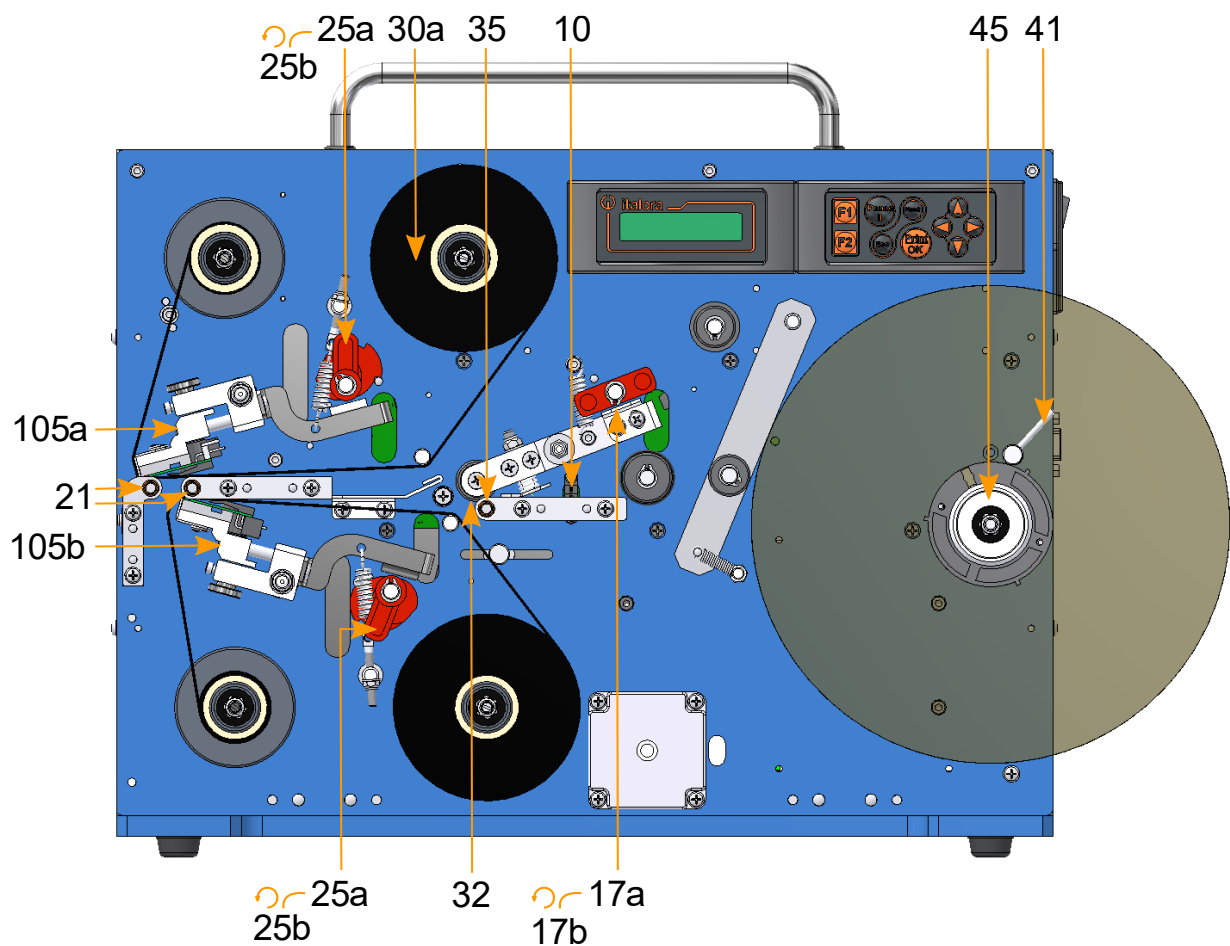
Lift the printheads #105a,b from the printing rollers #21 by rotating the levers #25 in position #25b, freeing the print media and thermal ribbons. Lift the pressure roller #32 from the driving roller #35 by rotating the lever #17 in position #17b.

Feed the print media through the driving roller #32, under the pressure roller #35 and thread it between the printing rollers #21 and the printheads #105a,b.

Lower the printhead assemblies by moving levers #25 to working position #25a and move lever #17 to working position #17a.

Check that the print media is positioned correctly under the fork photosensor #10.

If the format or the type of print media is changed, refer to the “Print media format setup” chapter.



13 Parameters setting, display e keypad

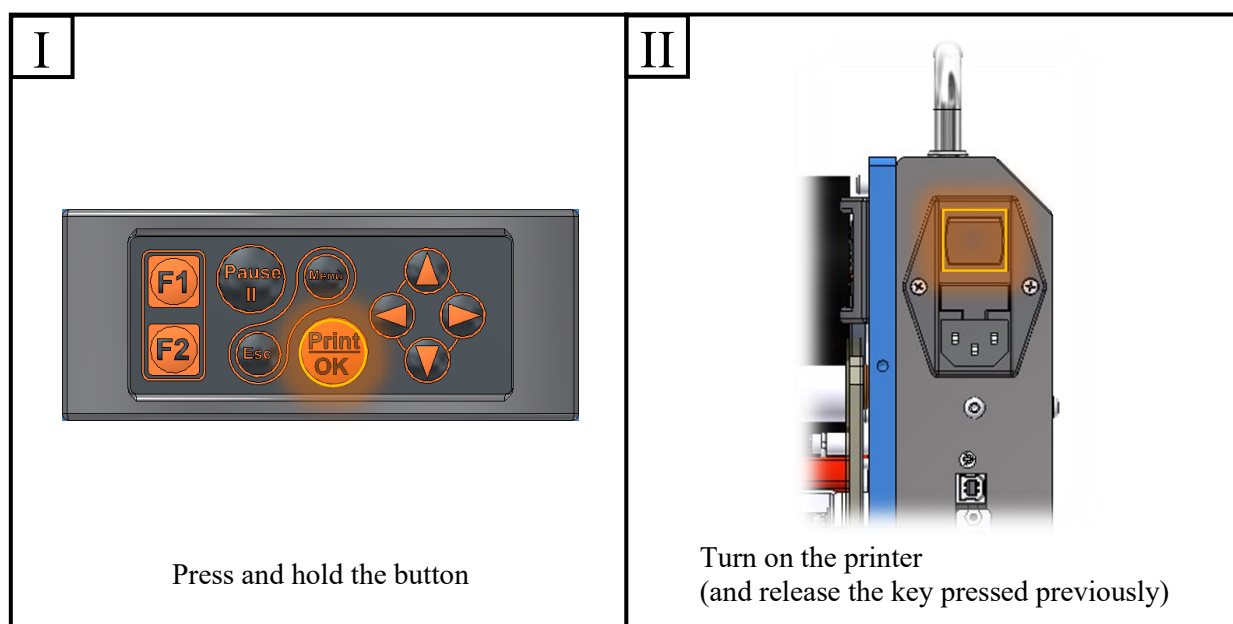
Keypad

The behavior of the printer in response to the use of the keypad depends on the operating conditions of the printer.

At power on

Features available when the printer is turned on.

NB: press and hold the corresponding button while turning the printer on.



- Print/OK
 - Perform the “initialization procedure” of the printer
- Menu
 - Access the “configuration menu” of the printer before it reaches the condition of “standard operation” (ready / data reception)
- UP arrow
 - Starts the “DUMP mode” for receiving the input data

Standard operation (ready / data reception)



- Print/OK
 - Print the contents of the print buffer (repetition of the last label issued)
(if the print buffer is empty - a condition that occurs when the Printer is turned on or after a "reset procedure" is performed -, it prints the so-called "test label" of the printer, containing a list of settings and current operating parameters of the printer)
- UP arrow
 - Increases the percentage of energy supplied to the print head (0 - 150%), thus increasing the print contrast
- DOWN arrow
 - Decreases the percentage of energy supplied to the print head (150 - 0%), thus increasing the print contrast

Warning: too high a percentage could cause serious damage to the print head or otherwise shorten its life

- Menu
 - Access the "configuration menu" of the printer
(see the 'Configuration menu' paragraph)
- F1
 - Access the "layout selection" section
(see the 'Layout selection (A - Z)' paragraph)
- "UP arrow" + DOWN arrow" (simultaneous press)
 - Performs the "reset procedure" of the printer

Configuration menu



Features available within the "configuration menu" of the printer.

- RIGHT/LEFT arrows
 - Scroll through the options available for each item in the menu and submenus
- UP/DOWN arrows
 - Scroll through the options available for each item in the menu and submenus
 - Increase/decrease of the numerical parameters present among the options
- Print/OK
 - Store the displayed option
 - Access the submenus (in correspondence with the message "OK to Enter")
 - Execute the displayed procedure (in correspondence with the message "OK to START!")
- Esc
 - Exit submenus and return to previous menu/submenu
 - Exit the menu and return to "ready"

Warning: to actually modify the value of any option it is necessary to press the "Print/OK" button!!
In case of changing menu item ("RIGHT/LEFT arrows") or exiting the submenu/menu ("Esc" key) without pressing the "Print/OK" key, the value of the option previously shown on the display will NOT be stored!!
In this case, the previously stored parameters are kept valid.
Each press of the "Print/OK" key causes the option currently displayed to be saved.

Layout selection (A-Z)



Features available in the “Layout selection” section”.

- RIGHT/LEFT arrows
 - Scrolling of “label formats” (‘A’ to ‘Z’)
- UP/DOWN arrows
 - Scrolling of available options (“Set as Default” o “Erase!”)
- Print/OK
 - Confirmation of the action to be performed
- Esc
 - Exit the section and return to “ready”

Dedicated procedures

Key sequences to be pressed in succession (starting from the “ready” condition) to access particular functions.

Debug menu



This succession of keys allows you to access the "debug menu", a function that allows the analysis of the internal settings of the printer and external interfacing signals.

"ready" screen → "Menu" key → "F1" key

“Print/OK” key → access the “debug menu”

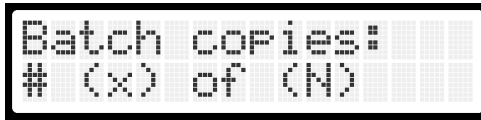
“Esc” key → back to “ready”

Features available in the “debug menu” of the printer:

- RIGHT/LEFT arrows
 - Scroll through menu items and submenus
- Pause
 - Suspension/resumption of "internal sensors" reading
 - Suspension/resumption of "input signals" reading
- Print/OK
 - Access the submenus (in correspondence with the message “OK to Enter”)
 - Execute the displayed procedure (in correspondence with the message “OK to START!”)
 - Resumption of "internal sensors" reading from pause condition
- Esc
 - Exit submenus and return to previous menu/submenu
 - Exit the menu and return to “ready”

Batch printing of labels

Function available when printing “batches of labels”.



- Pause
 - Suspension/resumption of the printing cycle
- Print/OK
 - Resume reading of the print cycle from the pause condition
- Esc
 - Suppression of the print cycle and return to “ready”

Syntax error



Error condition after the printer receives a command with invalid parameters.

The number of the ? command that generated the error is indicated on the LCD followed by the command itself. To reset the count of ? commands received by the printer refer to the ?A3&3,0 command.

In image: error generated by the 13th ? command received by the printer, a ?52& in this case

- Esc
 - Return to “ready”

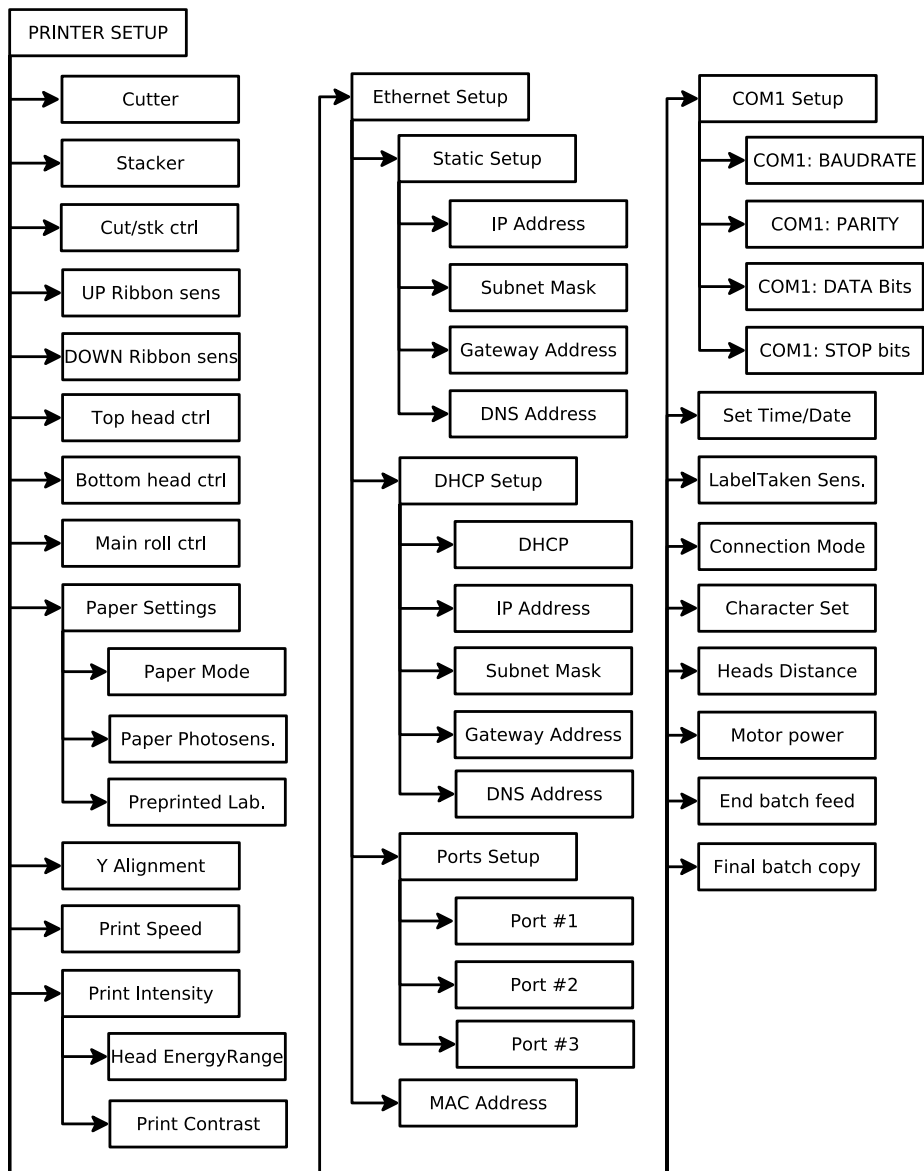
Configuration menu

The configuration menu allows to set the parameters and settings of the printer.

The available settings are divided into the following submenus:

- **PRINTER SETUP**
printer operating parameters
- **EXTERNAL SIGNALS**
management of external control signals
- **SPECIAL OPTIONS**
special modes of operation of the printer

Printer Setup

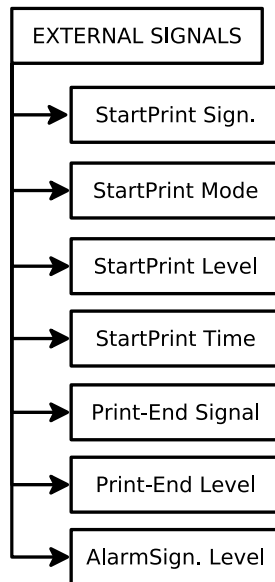


The "printer setup" submenu consists of the following items:

- Cutter
enable/disable cutter
- Stacker
enable/disable stacker
- Cut/stk ctrl
enable/disable cutter/stacker position detection and alarm
- UP Ribbon sens
enable/disable front ribbon end detection and alarm
- DOWN Ribbon sens
enable/disable back ribbon end detection and alarm
- Top head ctrl
enable/disable top head position detection and alarm
- Bottom head ctrl
enable/disable bottom head position detection and alarm
- Main roll ctrl
enable/disable pressure roller position detection and alarm
- Paper settings
print media management:
 - Paper Mode
print media type:
 - Labels
 - Continuous: continuous form media
 - Tag/Tickets
 - Paper Photosens.
type of media reading sensor:
 - Fork
 - Reflection
 - Preprinted Lab.
levels learning mode for the paper photosensor
- Y alignment
alignment "gap" at the end of printing
- Print Speed
- Print Intensity
print intensity adjustment:
 - Head EnergyRange
limitation of the energy supplied to the print head:
 - STANDARD (Low): "low energy" operation
 - HIGH Energy: high energy" operation
 - Contrast
percentage of energy supplied to the printhead
- Ethernet Setup
setting the Ethernet connection parameters:
 - Static Setup
static connection parameter settings:
 - IP Address
static IP address
 - Subnet Address
static subnet address
 - Gateway Address
static gateway address
 - DNS Address
static DNS address
 - DHCP Setup
DHCP connection parameters setting/display:
 - DHCP
DHCP enabling/disabling:
 - Enabled: DHCP enabled
 - Disabled: DHCP disabled
 - IP Address

- IP address obtained via DHCP
 - Subnet Address
subnet address obtained via DHCP
 - Gateway Address
gateway address obtained via DHCP
 - DNS Address
DNS address obtained via DHCP
- Ports Setup
 - TCP port settings:
 - Port #1
first port
 - Port #2
second port
 - Port #3
third port
 - MAC Address
displays the MAC address of the printer
- COM1 Setup
serial communication parameters for the COM1 port:
 - COM1: BAUDRATE
 - COM1: PARITY
 - COM1: DATA bits
 - COM1: STOP bits
- Set Time/Date
setting the internal clock and calendar of the printer
- LabelTaken Sens.
use/presence of the label taken sensor
- Connection Mode
control characters reception mode:
 - Standard: no changes to the input characters
 - Mainframe: transformation of all input control characters into the "Carriage Return" character (CR, ASCII code = 13 Dec)
- Characters Set
selection of the alphabetic character set used
- Heads distance
distance between printheads
- Motor power
allows to set the motor current level (low, medium, high)
- End batch feed
feeds the final part of print media that has already been printed at the end of a batch print
- Final batch copy
prints an extra copy to compensate the one that remains between the printhead at the end of a batch print

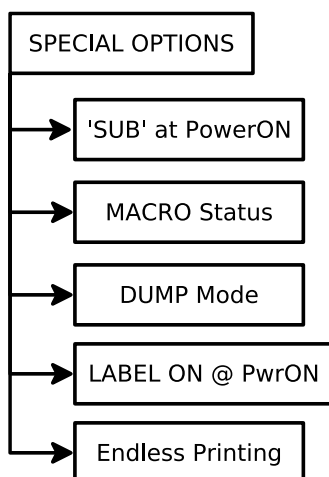
External Signals



The “external signals” submenu consists of the following items:

- StartPrint Sign.
enabling/disabling of the START PRINT signal
- StartPrint Mode
setting of the operation mode of the START PRINT signal
- StartPrint Level
setting of the logic level of activation of the START PRINT signal
- StartPrint Time
setting of the minimum duration of the START PRINT signal
- Print-End Signal
setting of the operation mode of the PRINT END signal
- Print-End Level
setting of the logic level of the PRINT END signal
- AlarmSign. Level
setting of the logic level of the ALARM/AUX signal

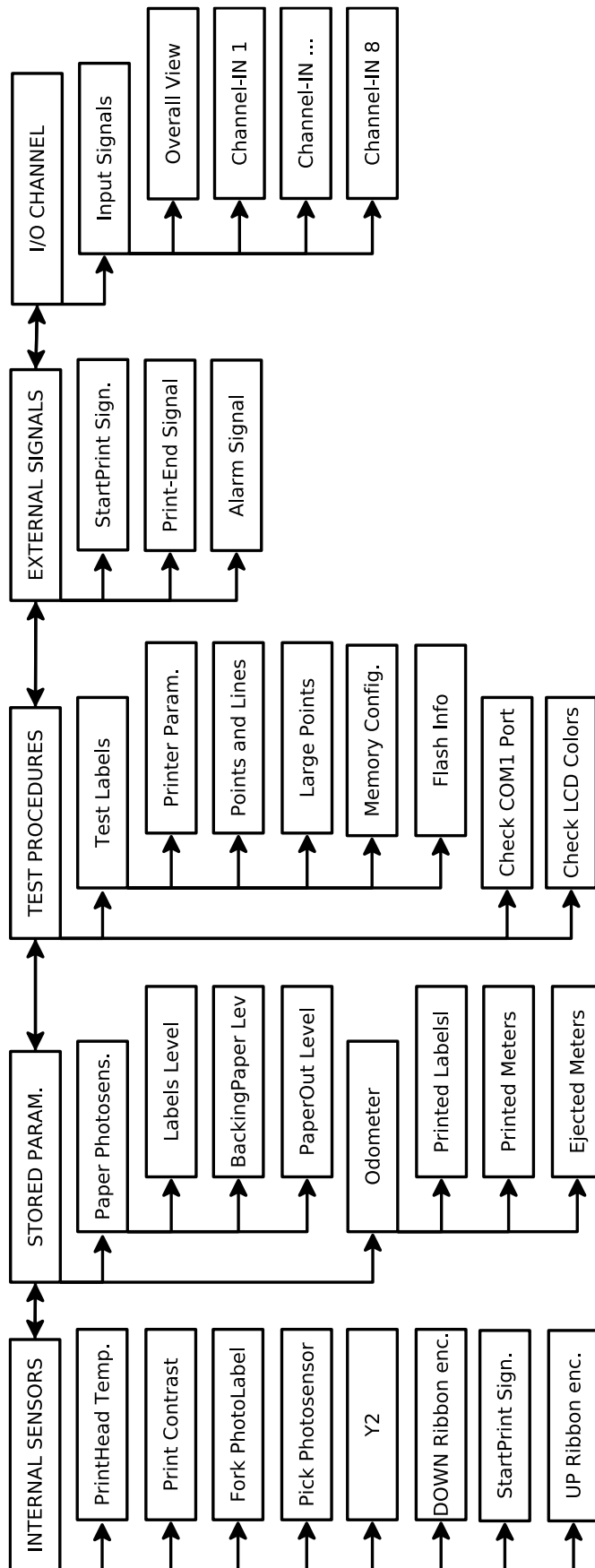
Special Options



The "special option" submenu consists of the following items:

- 'SUB' at PowerON
sending of the "SUB" character (by the printer) every time the power supply is restored (e.g. at power on or in the event of a power failure)
- MACRO Status
"Macro Interpreter" operating mode: the printer functions by automatically composing the labels with the data received directly from the device to which it is connected (e.g. scale)
- DUMP Mode
"DUMP" operating mode: the printer decodes all the characters it receives in input and prints them as a sequence of single values based on the set code (hexadecimal, decimal or ASCII)
- 'A'Format(PwrON)
automatic activation of the last active layout at power on
- Endless Printing
"infinite print" operating mode: continuous printing of the contents of the print buffer

Menu di debug



The debug menu allows to check and analyze the printer settings and any external control/interface signals, in order to identify and solve any problems.

It consists of the following submenus:

- **INTERNAL SENSORS**
readings from the internal sensors of the printer
- **STORED PARAM.**
transparency levels, number of prints and encoder parameters
- **TEST PROCEDURES**
procedures to test printer functionalities
- **EXTERNAL SIGNALS**
external control signals check
- **I/O CHANNELS**
input signals check

Internal Sensors

- **PrintHead Temp.**
printhead temperature
- **Print contrast**
print contrast percentage
- **Fork PhotoLabel**
value read by the media fork photosensor
- **Y2**
Value read on the Y2 connector
- **DOWN Ribbon enc.**
value read by the back ribbon encoder
- **StartPrint Sign.**
START PRINT input signal state
- **UP Ribbon enc.**
value read by the front ribbon encoder

Stored Param.

- **Paper Photosens.**
media transparency levels stored during the last label alignment:
 - **Labels Level**
limit value for the detection/recognition of the print media
 - **BackingPaper Lev**
limit value for the detection of the backing paper
 - **PaperOut Level**
limit value for the recognition of the end of media
- **Odometer**
print statistics:
 - **Printed Labels**
printed labels count
 - **Printed Meters**
printed media length count
 - **Ejected Labels**
ejected media length count

Test Procedures

- Test Labels
prints test labels:
 - Printer Param
printer operating parameters (printer's test label)
 - Points and Lines
check pattern of the integrity of the printhead dots
 - Large Points
check pattern of the integrity of the printhead dots
 - Memory Config.
printer memories configuration
 - Flash Info
printer flash memories configuration
- Check COM1 Port
serial communication check procedure (only for COM1)
- Check LCD Colors
procedure to check the operation of the 8-color LCD

External Signals

- StartPrint Sign.
START PRINT input signal state
- Print-End Signal
PRINT END output signal control
- Alarm Signal
ALARM/OUX output signal control

I/O Channels

- Input Signals
readings form the 8 input channels (Channel-IN)

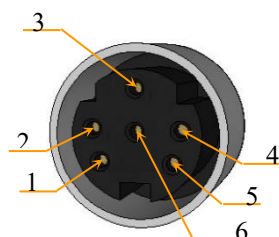
Display colors

LCD backlight colors meanings:

- White
 - “ready”/normal operation
- Red
 - error/alarm signal due to factors external to the printer (direct intervention by the operator needed to identify and resolve the anomaly)
- Yellow
 - error/alarm signal due to critical operating conditions inside the printer (the printer is reactivated when the operating conditions return to optimal)
- Light blue
 - browsing within the printer configuration menu
 - browsing within the “layout selection” section
- Pink
 - browsing within the “debug menu”
- Blue
 - printer busy doing internal procedures
 - pause during batch printing
 - pause during internal sensor reading (debug)
 - pause during input signals reading (debug)
- Blinking yellow/green
 - the operator needs to restart the printer (in correspondence with the "TurnOFF/ON to do" message)

14 I/O signals

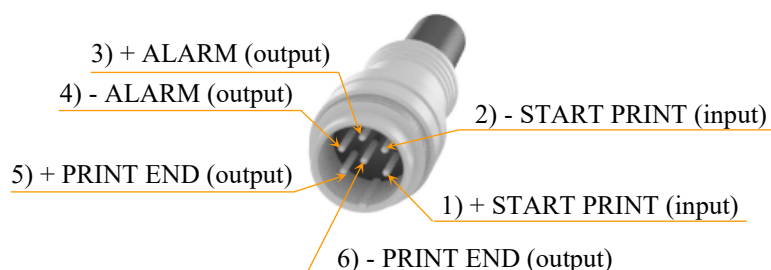
The pinout of the 6 poles din socket is shown below.



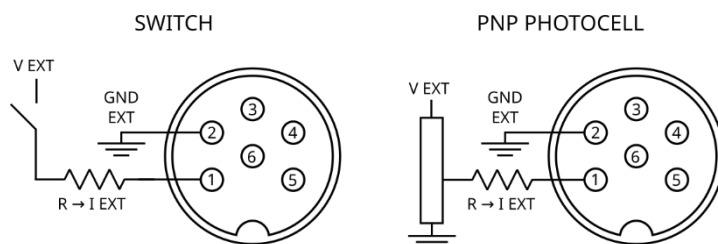
1	+ START PRINT (INPUT)
2	- START PRINT (INPUT)
3	+ ALARM (OUTPUT)
4	- ALARM (OUTPUT)
5	+ PRINT END (OUTPUT)
6	- PRINT END (OUTPUT)

The pinout of the 6 poles DIN plug is shown below.

The examples refer to the connection with a DIN plug seen from the welding side.



Start print signal (START PRINT)



Vext (Volt)	Iext (mA)	R (Ohm)
24	15	1270
24	30	470
24	50	150
12	15	470
12	30	70
5	15	0

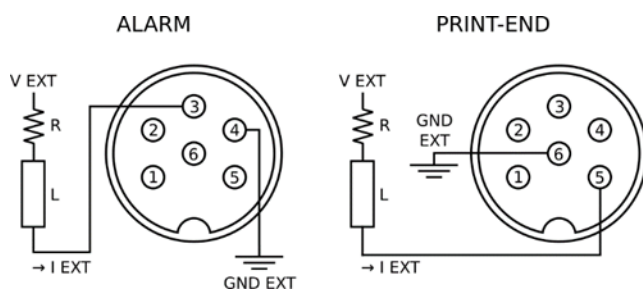
Vext = external power supply voltage

Iext = current generated by the external circuit

R = resistance of the external circuit

NOTE: the highlighted rows indicate the recommended

Alarm signal (ALLARME) e print end signal (PRINT END)



Vext (Volt)	Iext (mA)	R+L (Ohm)
24	10	2400
24	20	1200
24	50	240
12	10	1200
12	20	600
12	50	120
5	10	500
5	20	250
5	50	100

Vext = external power supply voltage

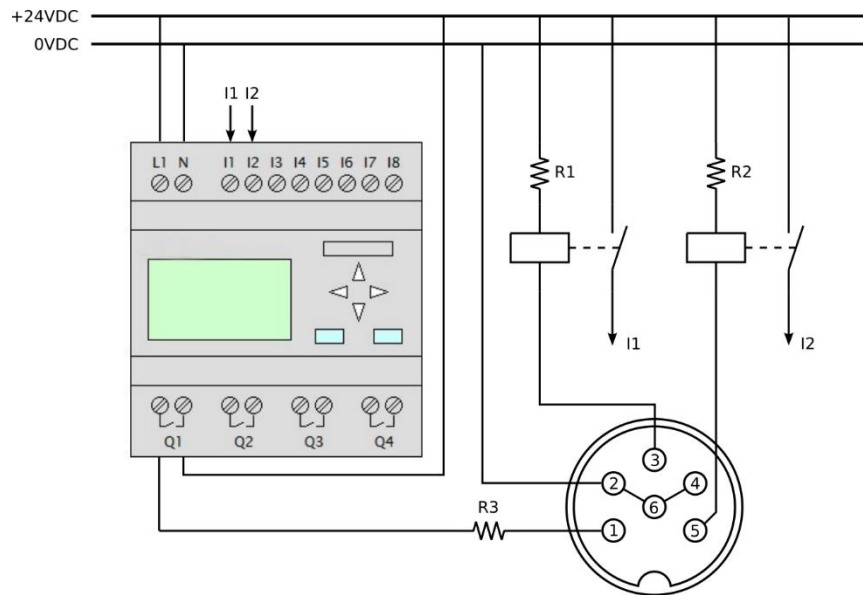
Iext = current generated by the external circuit

R = current limiting resistor

L = load resistance of the external circuit

NOTE: the highlighted rows indicate the recommended

Application example with PLC



15 Cleaning

Printheads

Turn off the printer and wait for the printheads to cool down.

Lift the printhead assemblies #105a,b by turning the lever #25 to position #25c.

Lift the pressure roller #32 from the driving roller #35 by rotating the lever #17 in position #17b.

Remove the thermal ribbon and print media rolls.

Wipe the underside of the printheads with a soft cotton cloth moistened with denatured alcohol.

Never use metal or sharp tools, as they could cause irreparable damage to the printhead.

Wait for the cleaned parts to dry before using the printer.

Print and feed rollers

Turn off the printer.

Lift the printhead assemblies #105a,b by turning the lever #25 to position #25c.

Lift the pressure roller #32 from the driving roller #35 by rotating the lever #17 in position #17b.

Remove the thermal ribbon and print media rolls.

Clean the rollers using alcohol-based cleaners.

Photosensor

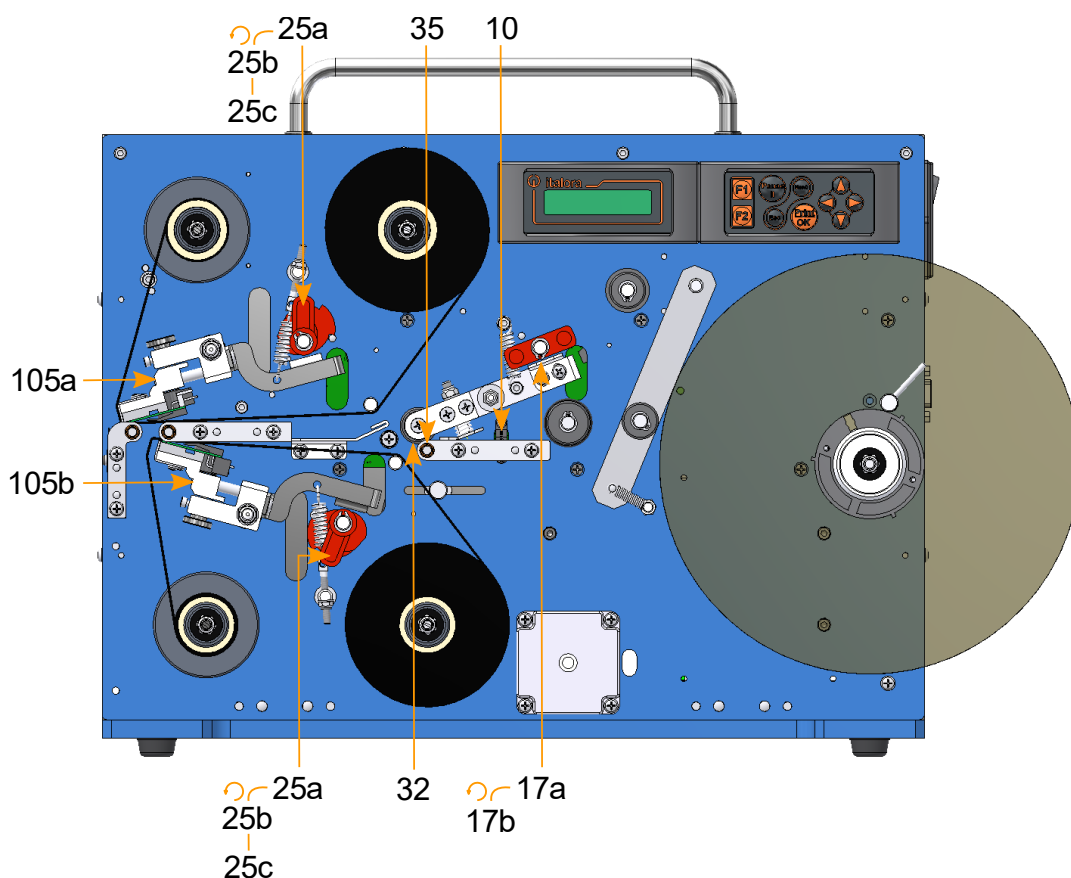
Turn off the printer.

Lift the printhead assemblies #105a,b by turning the lever #25 to position #25c.

Soll Lift the pressure roller #32 from the driving roller #35 by rotating the lever #17 in position #17b.

Remove either the labels or thermal ribbon roll depending on the photosensor to be cleaned.

Use a soft brush to clean.



Metallic and plastic parts

Use a soft cloth moistened with a detergent.
Do not use solvents or thinners.

Adhesive traces or parts of labels

Use denatured alcohol making sure that drops of liquid do not come into contact with electrical parts.

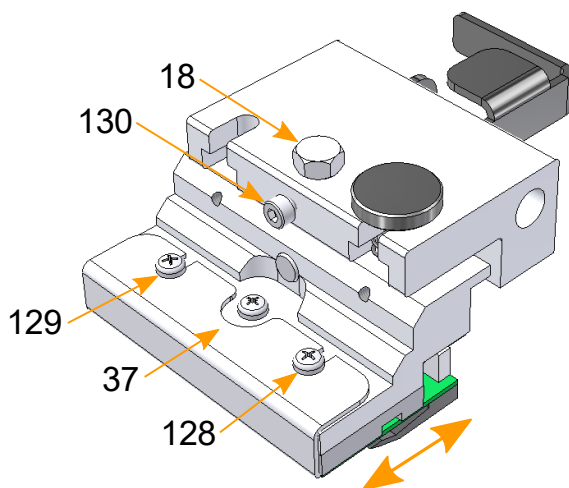
16 Maintenance

If the printer is not used for prolonged periods of time, it is recommended to turn it off and lift the printhead assemblies #105a,b and the pressure roller #32 to avoid damaging the print rollers #21 and the driving roller #35.

Printhead alignment

To have the best print quality, the dots of the printhead must be aligned with the tangency point of the feed roller.

If this alignment is incorrect, the printout may be faded and the ribbon may crease. The presence of these creases can cause the thermal ribbon to rewind incorrectly and produce white print areas.

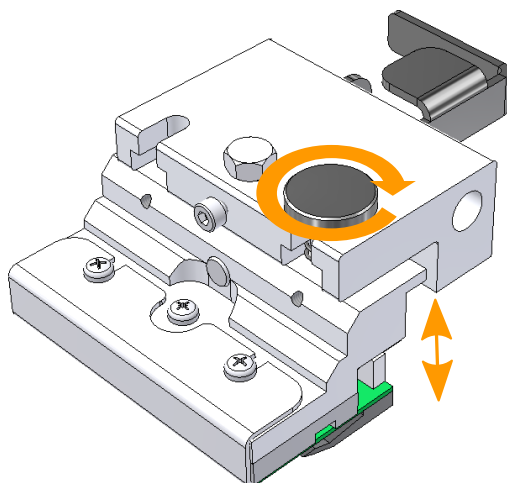


The fine-tuning of this alignment can be done by rotating the eccentric nut #18 placed in the center of the printhead assembly, thus adjusting the position of the printhead with respect to the tangent point of the print roller.

A rotation of 360° and multiples will bring the printhead back to the initial position; adjust the eccentric nut by turning it a few degrees at a time.

Before proceeding with the adjustment, it is necessary to loosen the locking screw #130.

In case the thermal ribbon is not rewound with sufficient tension, loosen screws #128 and #129 and adjust the alignment of plate #37 until correct rewinding is obtained. Finally lock the screws.



If the label is lighter on one side, it will be necessary to turn the slotted screw #142 to adjust the angle of the printhead. By turning this screw clockwise or counterclockwise it is possible to increase or decrease the pressure of the printhead on one side of the label.

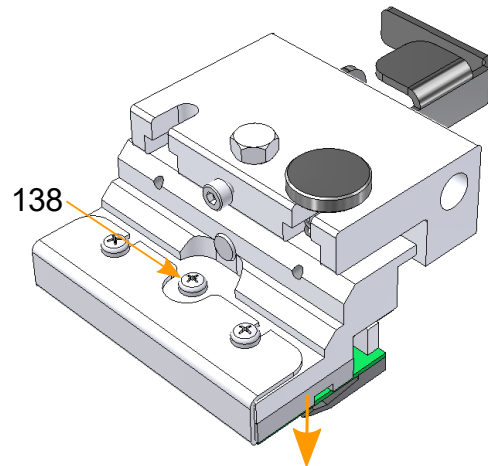
By acting on this adjustment it will also be possible to solve any alignment problems of the thermal ribbon with the print roller and eliminate any crease.

This procedure is especially useful when printing on narrow labels.

Printhead replacement

Turn off the printer, lift the printhead assembly #105 by turning the lever #25 to position #25c and remove the thermal ribbon roll.

Disconnect cables #112 on the back of the printhead and unscrew screw #138.

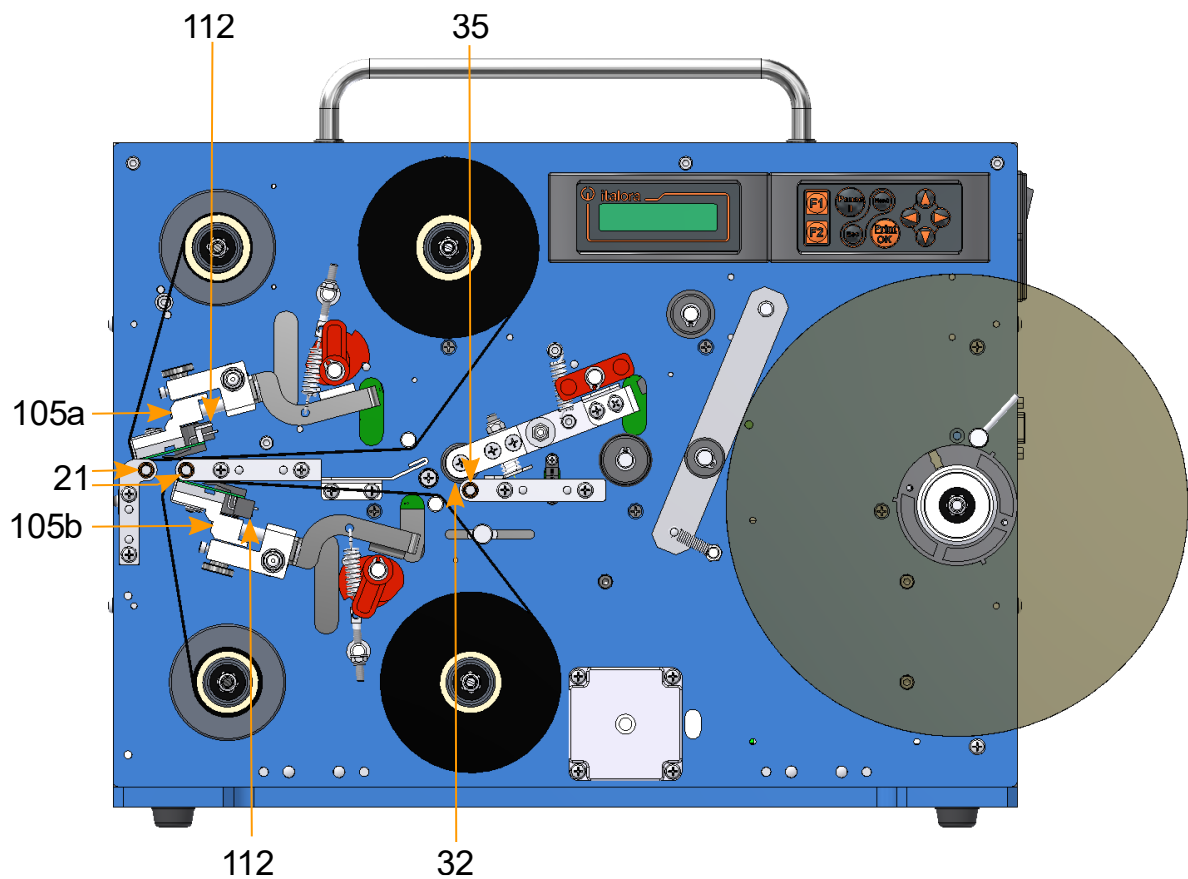


The printhead has two holes that match two pins on the support: remove it by pulling it downwards.

Replace the printhead by proceeding backwards with the operations just performed.

Pay close attention to the connection of the printhead: incorrect insertion of cables #112 could cause irreversible damage to the printhead itself.

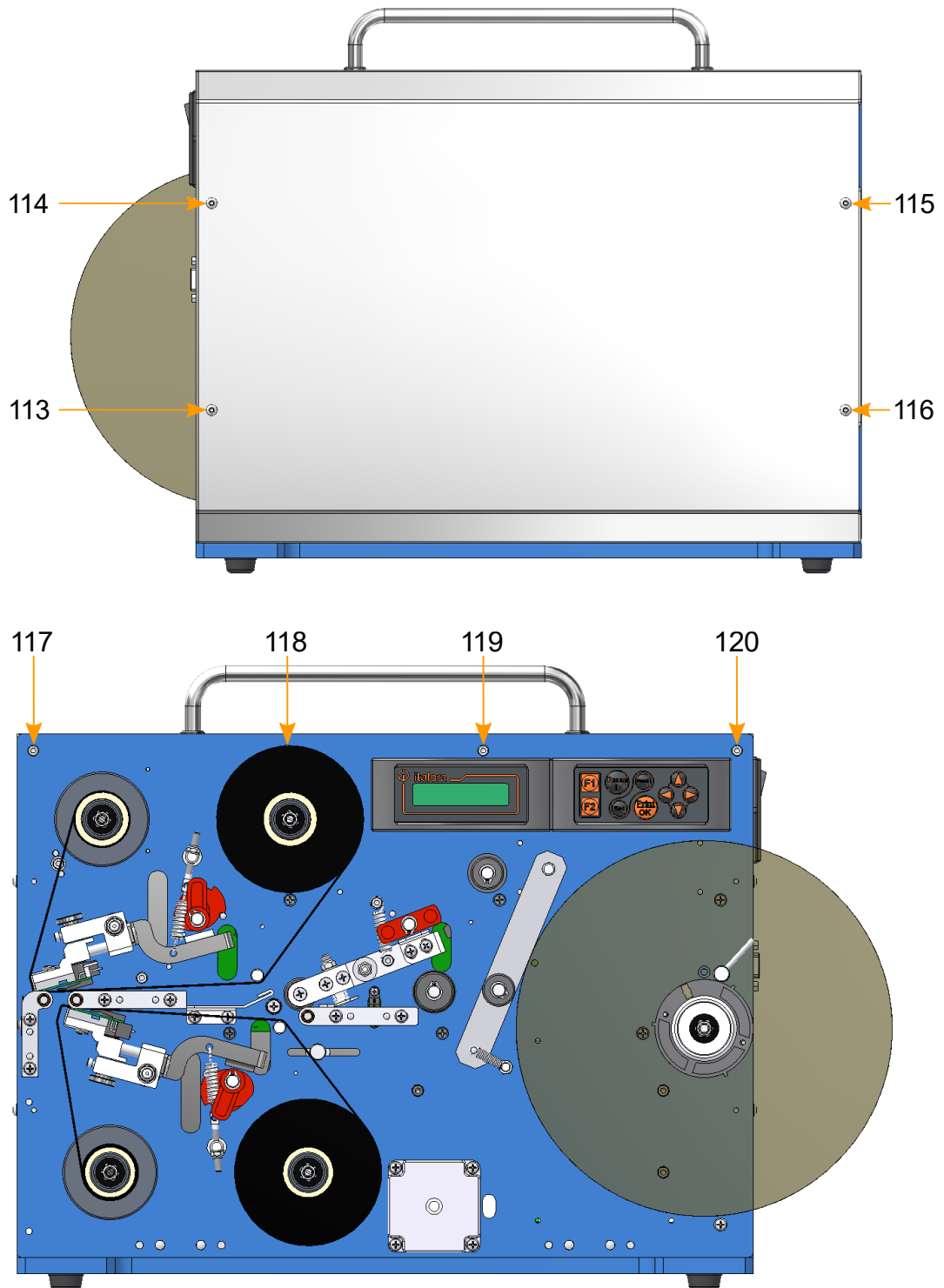
In case of print quality problems, refer to the “Printhead alignment” chapter.



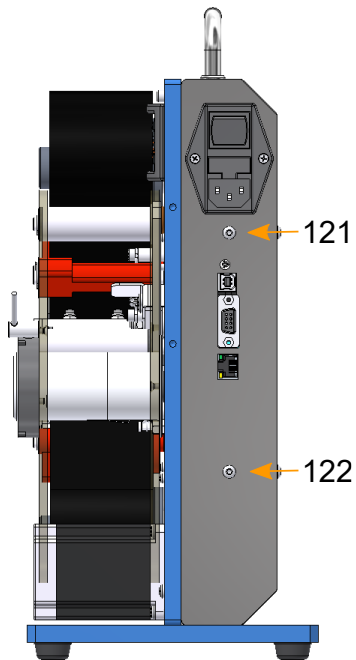
Access the electronics compartment

Before accessing the electronics compartment, **disconnect** the printer power cable.

Remove the back panel by unscrewing the screws #113-120.



Remove the right lateral panel by unscrewing the screws #121 and #122.

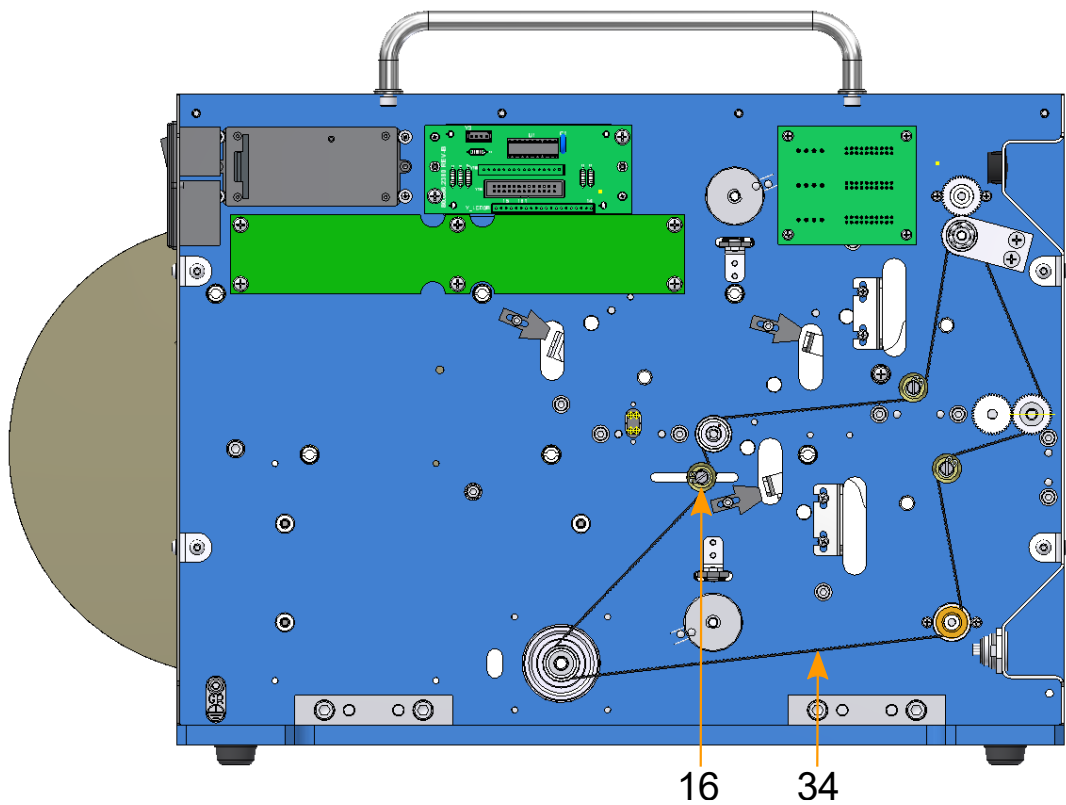


Unplug the following connectors from the CPU board (see chapter “CPU board connectors”):

Y3	LCD
Y4	stepper motor
Y5	print media photosensor
Y11	I/O signals
YGM	printhead
Y15	printhead power
Y17	keypad
Y18	LCD
Y20	expansion board
Y21	expansion board
Y22	front thermal ribbon photosensor
Y23	back thermal ribbon photosensor
Y30	power supply

Drive belt replacement

Loosen the belt tensioner #16 and proceed with the replacement of the belt, subsequently adjusting its tension using the belt tensioner itself.

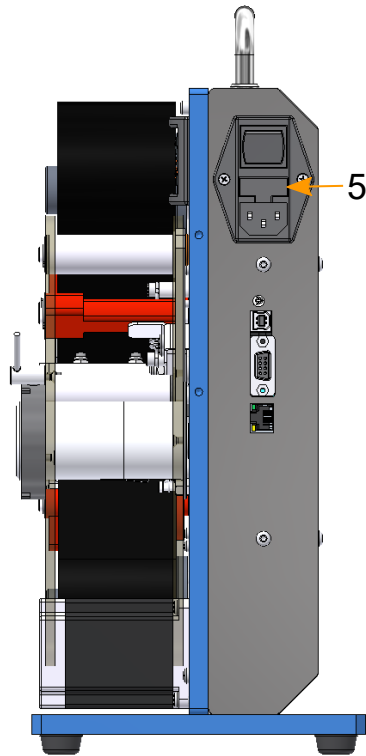


Fuses replacement

Turn off the printer and disconnect it from the mains before replacing any fuse.

Remove, using a slotted screwdriver, the special plastic support #5 containing the two T2A fuses, located on the right side panel.

Replace the damaged fuse and reinstall the plastic holder.



17 Troubleshooting

Print media not advancing

The following conditions may occur:

LCD off

Check that mains power #104 is present, that the mains switch #103 is on and that the fuses #5 are intact.

Refer to the “General description” and “Fuses replacement” chapters.

Red LCD

Check that the print media and thermal ribbon rolls are not finished.

Verify that the print media is correctly positioned under the photosensor #10.

Refer to the “Print media replacement” chapter.

If the printer is in syntax error condition, press the print button #1 or turn the printer off and on again using the mains switch #104.

Refer to the “General description” chapter.

Yellow LCD

Printhead temperature control is active.

The printer waits until the temperature is within the set values.

Incorrect print media alignment

Make sure that:

- the printhead assemblies #105a,b are in working position, with the lever #25 in position #25a
- the pressure roller lever #17 is in working position #17a
- the print media is correctly positioned under the fork photo sensor #10
- the flange is pushing tightly against the side of the media roll, with the lever #41 in locked position

Also follow the “Print media format setup” chapter.

Print media slides to the right

Verify that the flange pushing tightly against the side of the media roll, with the lever #41 in locked position.

Print defects

Proceed with cleaning the printhead, as described in the “Cleaning - Printhead” chapter.

Check that the thermal ribbon rewinds properly and without wrinkles.

In case of wrinkles, turn the nut #110 clockwise (1/4 of a turn max) while keeping the roller #29 locked, in order to increase the rewind tension.

Blank labels

Check that:

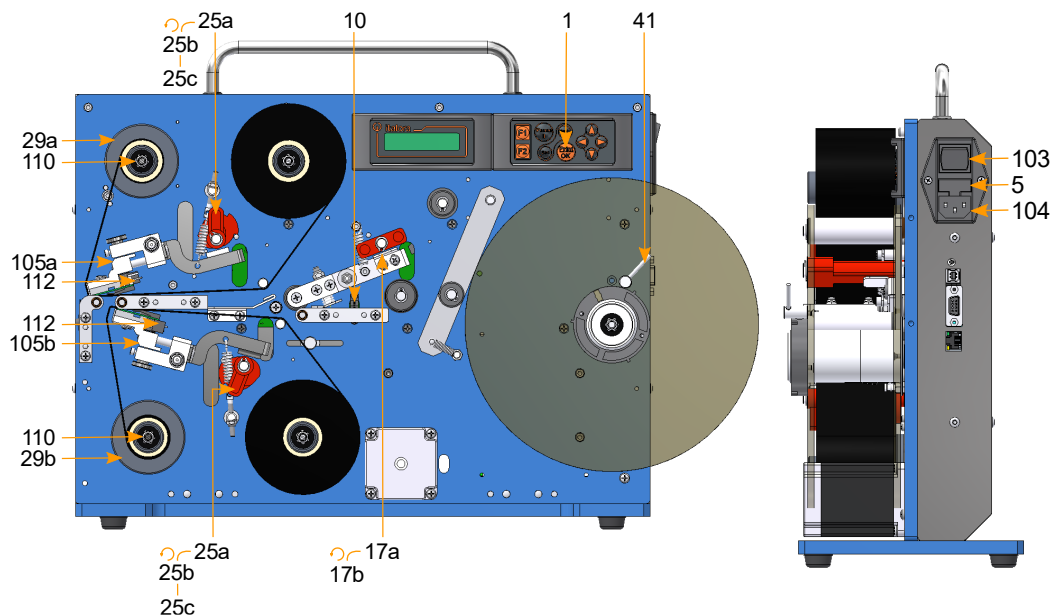
- connectors #112 of the printhead is correctly connected, referring to the chapter "Printhead replacement"
- the thermal ribbon is correctly positioned, with the inked surface facing the print media

Insufficient print intensity

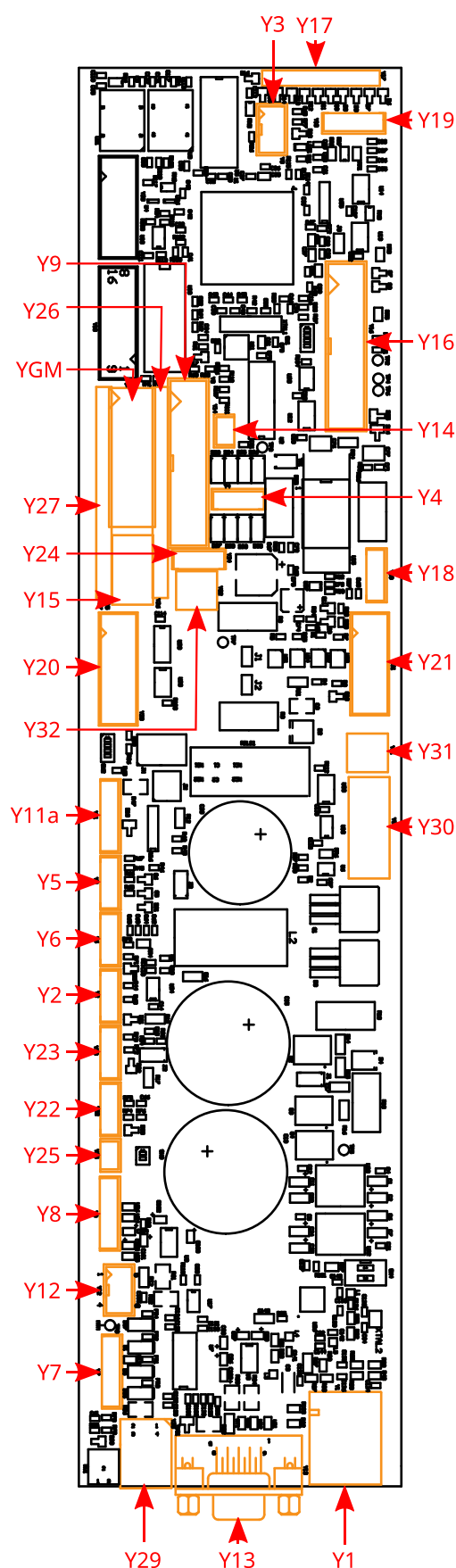
With the printer in normal operation mode (white LCD): use the UP/DOWN arrows to increase/decrease the print contrast (0-150%).

Alternatively, use the software command ?77& described in the “Programming Manual”.

Excessive printing intensity could shorten the life of the printhead and cause the thermal ribbon to melt.



18 CPU board connectors



TX 2"/12-CS - Electronic EL7B

Y1	RJ45 Ethernet
Y2	
Y3	LCD
Y4	Motor
Y5	Print media photosensor
Y6	
Y7	
Y8	
Y9	
Y10	
Y11a	I/O signals
Y12	
Y13	DB9 serial port
Y14	
Y15	Printhead power
YGM	Printhead
Y16	
Y17	Keypad
Y18	LCD
Y19	
Y20	Expansion board
Y21	Expansion board
Y22	Front ribbon photosensor
Y23	Back ribbon photosensor
Y24	
Y25	
T26	
Y27	
Y28	
Y29	USB 2.0 type B
Y30	Power supply

19 Replacement parts

#	Code	Description
1	PMYK80082296000	keypad
2	PLTN80166528000	DIN 6 connector
3	PMZH80092909000	printing roller plate
4	PM7M80092910000	printing roller plate
5	PMQC05610208000	T2A fuse
10	PLQE80906508000	print media photosensor
11	PMYL80094388000	LCD assembly
13	800823260000000	power supply
15	printer serial number	CPU board
16	PLFT80092531000	belt idler assembly
17	PMCZ80076209002	lever
18	PLND80072246000	printhead eccentric nut
19	PLAL06170205000	bushing
21	PLBE80131213000	printing roller
22	PM5A80092918000	heatsink assembly
23	PLCP80074210000	printhead lever spring
24	PMZG80072298000	driving roller
25	PLFH80092588000	printhead lever
26	PT0380081203000	printhead CWCS01M
27	PMWT80094A45000	ribbon rewinder assembly
28	PMWU80094A46000	ribbon stock assembly
29	PMQ780074221000	ribbon spring
30	PMWV80166527000	ribbon photosensor
31A	PMIM05900704000	20 pin 400 mm printhead flat cable
31B	PMNN05900618000	20 pin 300 mm printhead flat cable
32A	PMVZ05900728000	4 pin 400 mm printhead power cable
32B	PMI405900617000	4 pin 300 mm printhead power cable
33	PMWW80092914000	pressure roller
34	PM2Y80180231100	belt
35	PMW780082305000	antistatic brush
36	PM4M80092923000	40/76mm adapter

40	PMW280074209000	spring
41	PLRL80160209000	fixed flange assembly
43	PMAV80072254100	tie rod
44	PMZ780092925000	printing roller pinion
45	PLGH80162216000	printing roller pinion
46	PLLF80160520000	movable flange assembly
47	PMWX80092921000	Z25 pinion
49	PMWY80094A51000	12 dot stepper motor assembly

