

Model T7

# DESKTOP CARD ISSUANCE SYSTEM



**OPERATOR MANUAL**

Revision 2.02



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# Chapter 1 – Introduction

## 1.1 Warnings



Respect these warnings and follow the indications labeled on the system. Power the system through the electrical power supply indicated on the related label. Connect the system to plugs-in provided with a grounding device. The system has never to be installed near heat or cooling sources. When the cover is open the system automatically stops all the motors; this kind of safety is useful when cleanings and changing of consumables have to be performed.

Only perform the adjustments reported in this manual: a wrong adjustment may cause serious damages.

## 1.2 Specifications

<b>Productivity Speed</b>	1100 card per hour (Monochrome printing) 120 card per hour (Color "edge-to-edge")
<b>Printing Mode</b>	Thermal Transfer and Sublimation 300 DPI Edge-to-edge printing
<b>Ribbon Type</b>	Black monochrome (1000 or 5000 prints) Other monochrome: Red, Blue, Green, White, Gold and Silver (1000 prints) Scratch-off (1000 cards) 2 panels Black and Overlay (500 images) 5 panels YMCKO (200 or 1000 images) 6 panels YMCKOK (200 images) Half-panel YMCKO (400 images)
<b>Card Format</b>	ISO CR80 – ISO 7810
<b>Hopper Capacity</b>	Input: 250 cards Output: 250 cards
<b>Size</b>	Width: 54 cm (21.2") Depth: 31 cm (12.1") Height: 35 cm (13.6")
<b>Weight</b>	25 Kg (56 lbs)
<b>Communication Interface</b>	Serial port, parallel port and USB
<b>Electrical Requirements</b>	110V, 120V, 220V, 240V; 50/60 Hz
<b>Operational Environment</b>	Temperature: 13/35°C (55/95°F) Humidity: 20% to 80% non-condensing

## 1.3 Choice of site

Follow the instructions reported below to choose the site where you want to place the T7 system and to remove the package.

Before starting the installation, choose a wide and functional area with the following requirements:

- A level and rigid surface. Yielding surfaces, like pre-manufactured platforms or floors covered with a fitted carpet, don't guarantee the right alignment of the modules making up the T7 system.
- A good accessibility. Leave free spaces all around the machinery, in order to allow access to inspection and maintenance areas, and a right ventilation of the system. Also leave at least one meter in front of the machine, so that the operator using the front panel has got a proper working area.
- Favorable environment conditions. Install the T7 system in a cool and dry place; avoid too cold or too warm temperatures; keep the machinery far from humidity, dust and smoke. Don't directly expose to heat or sunlight. No electromagnetic interferences.
- Proper electrical power supply. Connect the system and its devices with cables fit to your electrical power supply net. When using extensions or multiple plugs-in, be sure that the total absorption doesn't exceed the maximum allowed value.

## 1.4 Removal of the package

The system is delivered in a cartoon box.

It's necessary to pay attention to the infrastructures' size (doors, hoists, etc.) through which the machine must be passed to be definitively settled in its site.

To dismantle the box, carry out the following procedure:

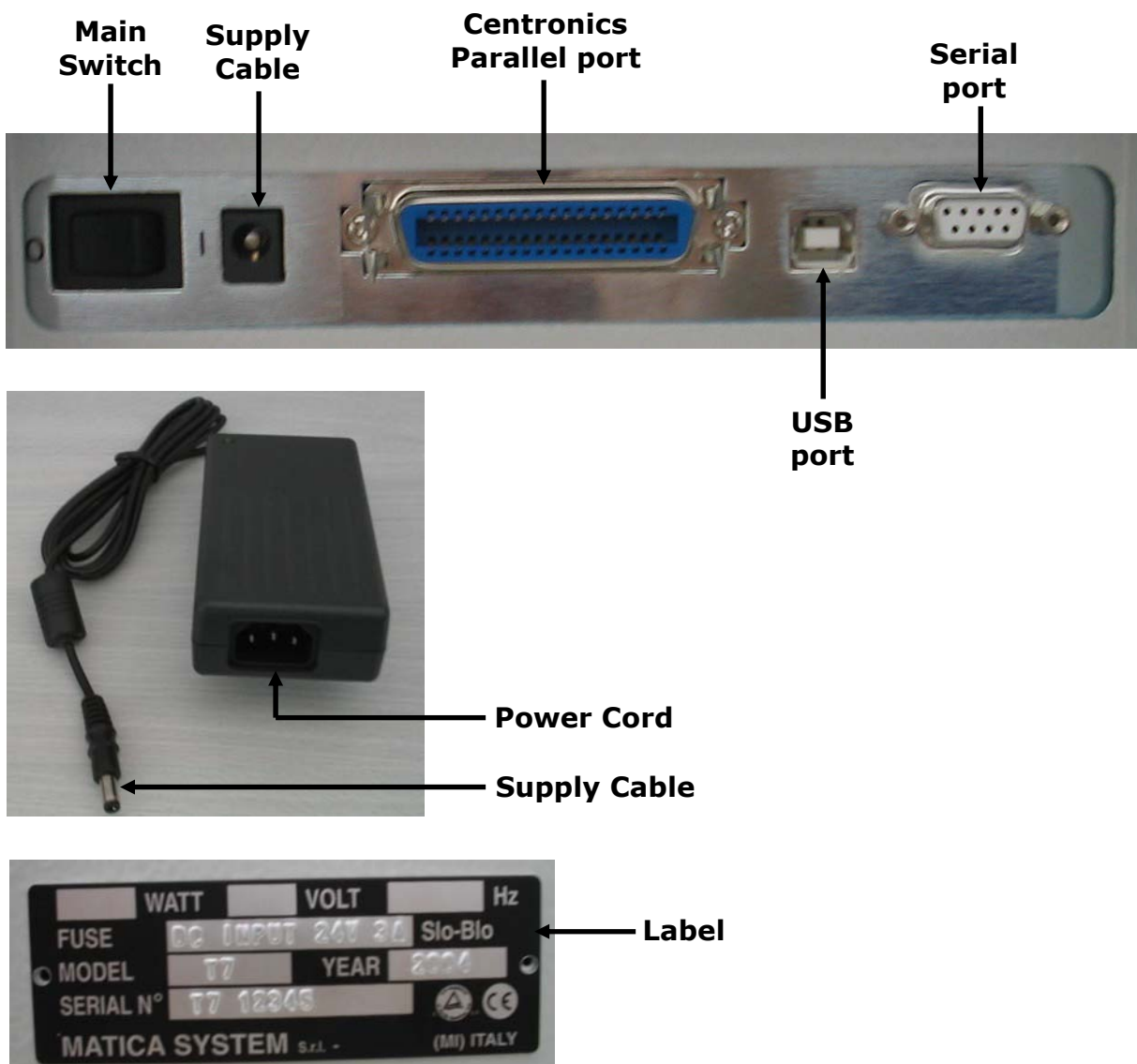
- Remove the eventual bands with a cutter.
- Open the top of the box by cutting the adhesive tape.
- Remove the top polystyrene protection.
- Extract the machine from the bottom polystyrene protection.
- Remove the polyurethane film protection.

It is advisable to keep the box, the pallet and the protective materials for possible reuse.

In addition to the machine, the following components are also packed inside: Power Supply, Power cord, USB cable, Parallel cable, CD containing MatiCard® Card Design Software, Operator Manual and other documentations.

## 1.5 Installation

In order to install the system, you have to connect the Power Supply and the interface cable on the back panel of the system; then you must connect the power cord to the Power Supply. On the same side you'll find the machine label containing the specifications of the system; verify that the voltage marked on the label corresponds with your country voltage supply.

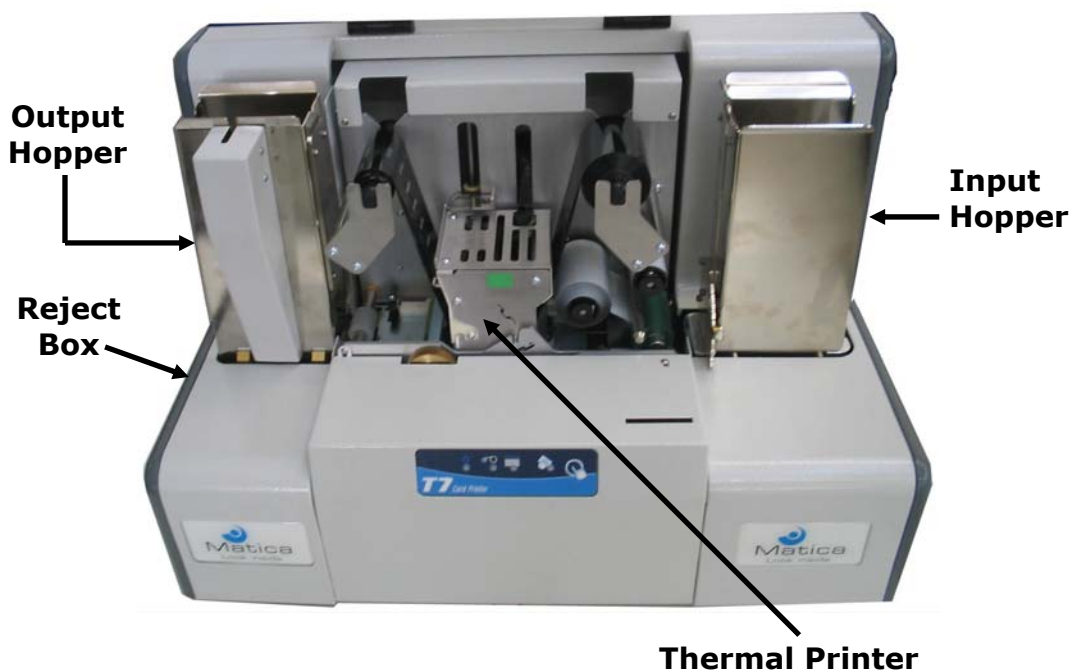


## Chapter 2 – Start up

### 2.1 Configuration

The T7 system is provided with the following features:

- Automatic Input Hopper
- Full color Thermal Printer module
- Output Hopper with Reject Box



Refer to paragraph 2.4 for details and to chapter 3 for consumables.

### 2.2 Power On


Power on the machine by switching the main switch in the **I** position; the green led on the console will turn on. The system is ready to work.



## 2.3 Console

The T7 console is made by four led and one button.



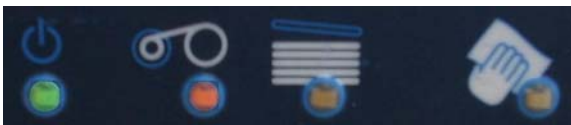
The power green led is under the power symbol: 

- when this led is switched on, the system is ready
- when this led is flashing, the system is processing data or self-testing



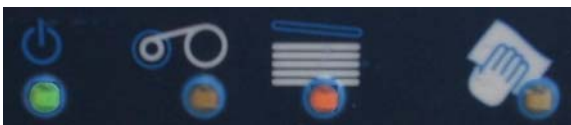
The ribbon red led is under the ribbon symbol: 

- when this led is flashing, the printing ribbon or the cleaning ribbon is ended



The cards red led is under the cards symbol: 

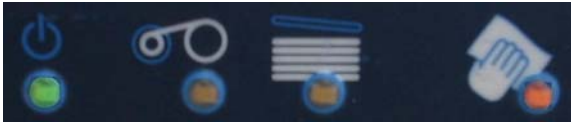
- when this led is switched on, the Input Hopper is empty
- when this led is flashing, the Output Hopper is full



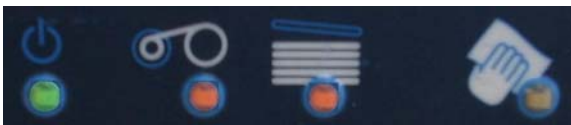


The cleaning red led is under the cleaning symbol:

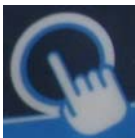
- when this led is switched on, a cleaning cycle must be performed (see paragraph 5.1)



If the power led, the ribbon led and the cards led are switched on at the same time, there is an internal printer problem.



The button could have different functions depending on the system status.



- if the cards red led is flashing (no cards in the Input Hopper), pushing this button makes the console returns to its original status
- if the power led, the ribbon led and the cards led are switched on (internal printer problem), pushing this button makes the console returns to its original status
- if the cleaning led is switched on (printer cleaning), pushing this button allows the running of an automatic cleaning cycle; for further information see paragraph 5.1
- if the power led is the only one switched on (system ready), pushing this button allows the printing of a test card

## 2.4 Working Cycle

To perform a working cycle you must introduce the plastic cards to be personalized into the automatic Input Hopper, with the magnetic stripe on the bottom right side of the card. Then you had to run the desired job with the MatiCard® software.



The Thermal Printer module performs a 300 dpi graphic printing of the card in the desired position. The module can print the card from edge to edge (for the available MATICA ribbons see paragraph 1.2). The Printer is equipped with a system which combines a cleaning tape and a cleaning roller called AdvanceClean®, and ensures that cards are free from dust and debris. Furthermore the Thermal module automatically gives a warning, by flashing a red led on its console, to remember that the printing head has to be cleaned (see paragraph 5.1); the operator can also decide how often has to be performed the automatic cleaning sequence of the entry roller (see paragraph 5.2).

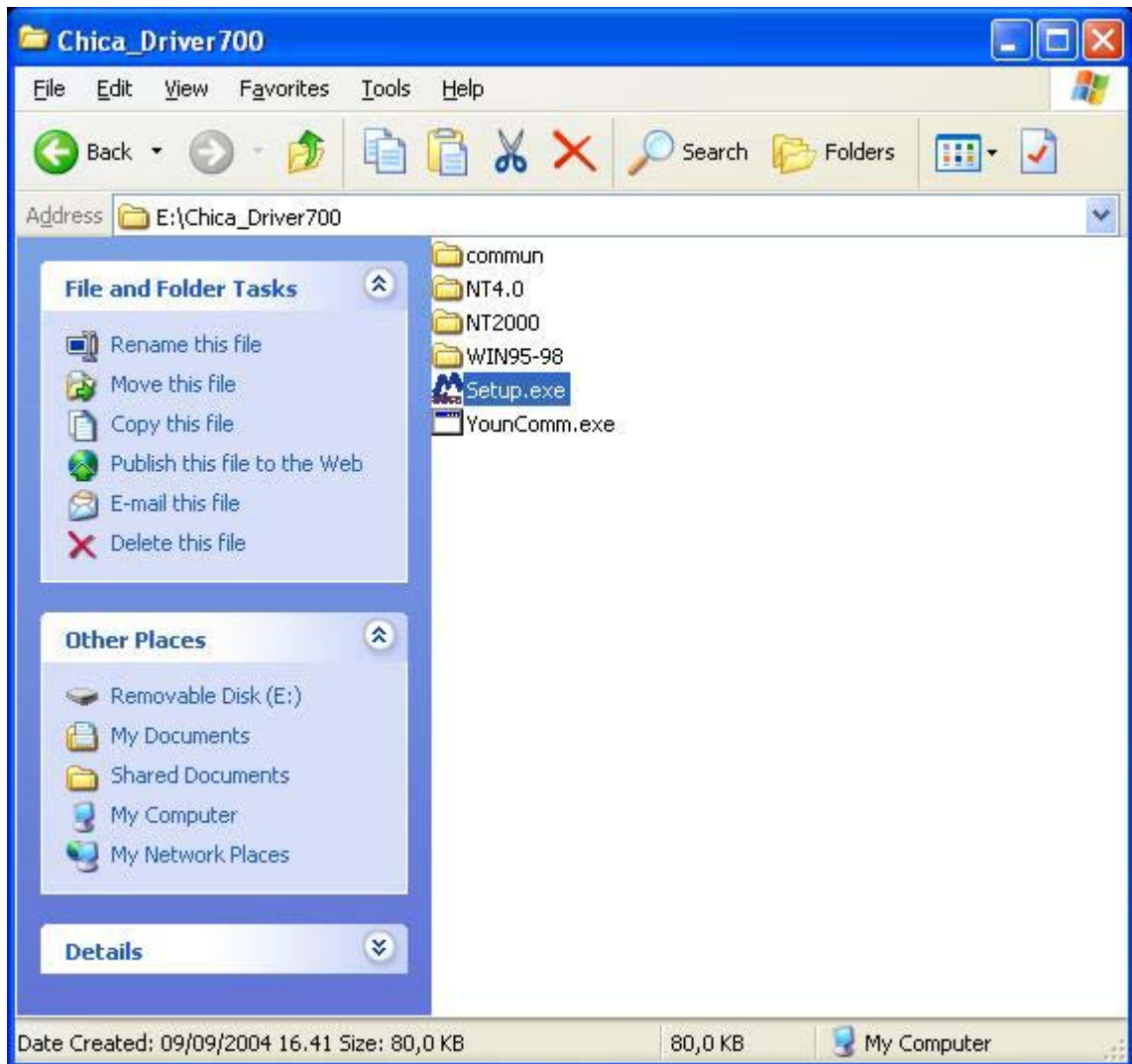


At the end of the cycle, the card is stored in the Output module; if the card is well personalized will be in the upper Output Hopper, while if the card is rejected or defective will be in the lower Reject Box.

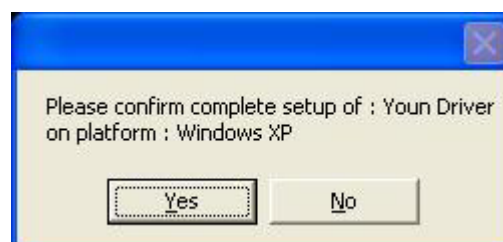


## 2.5 Installation of the driver

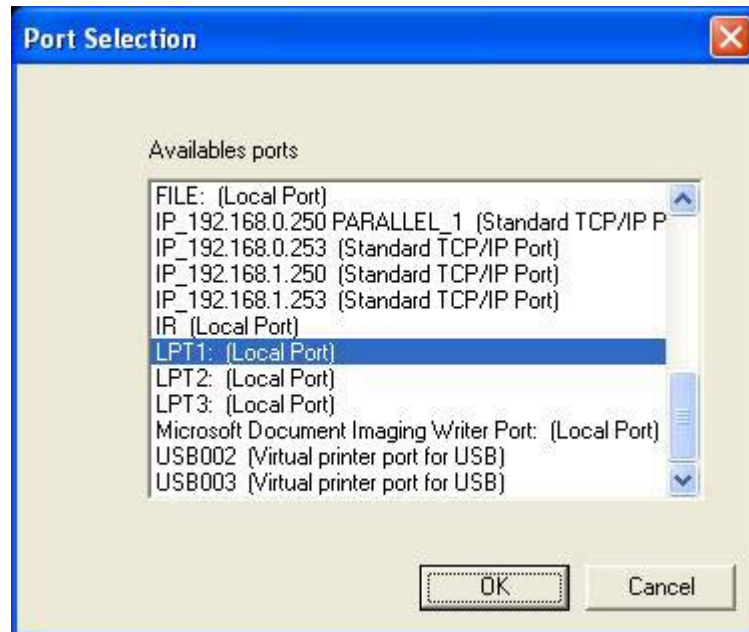
In order to install the T7 system driver, you have to run the Setup file of the Chica\_Driver700 directory.



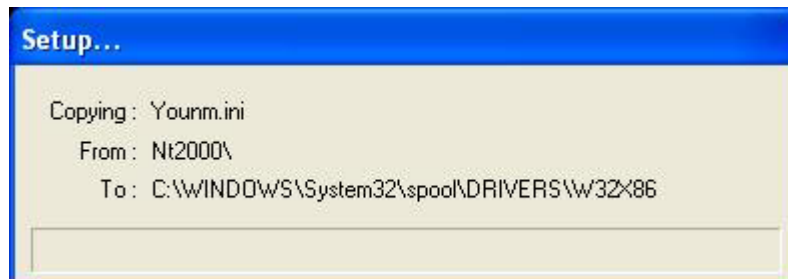
First of all you must confirm the driver to setup, named Youn Driver, and the computer platform.



Then you need to choose the computer port for the data transmission.



Now the setup program copies the driver files in the computer system directories.



At the end of the copy the program shows a window to inform that the setup is complete.



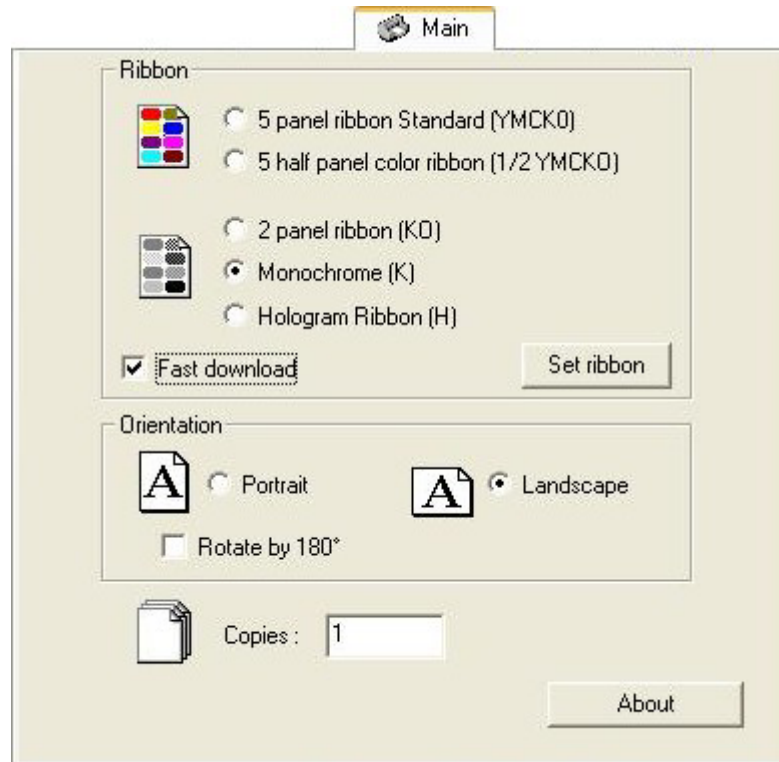
To see the driver icon, named Matica Chica, you must open the Printers window.



Now you have to access the driver properties in order to set some parameters.

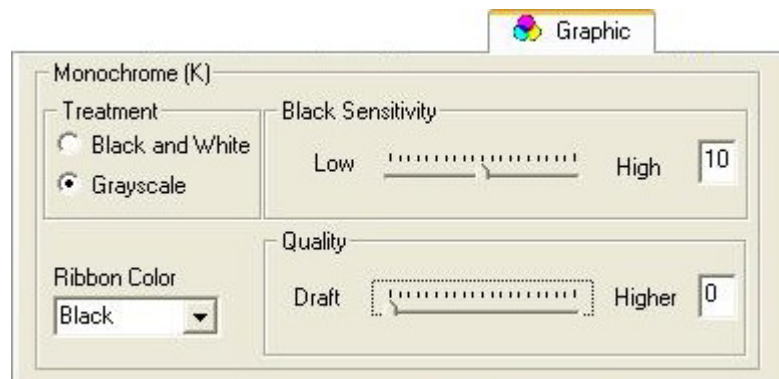


In the Properties window there are several items. In the Main item you must choose the ribbon type and check mark the “Fast download” option to improve the printer speed.

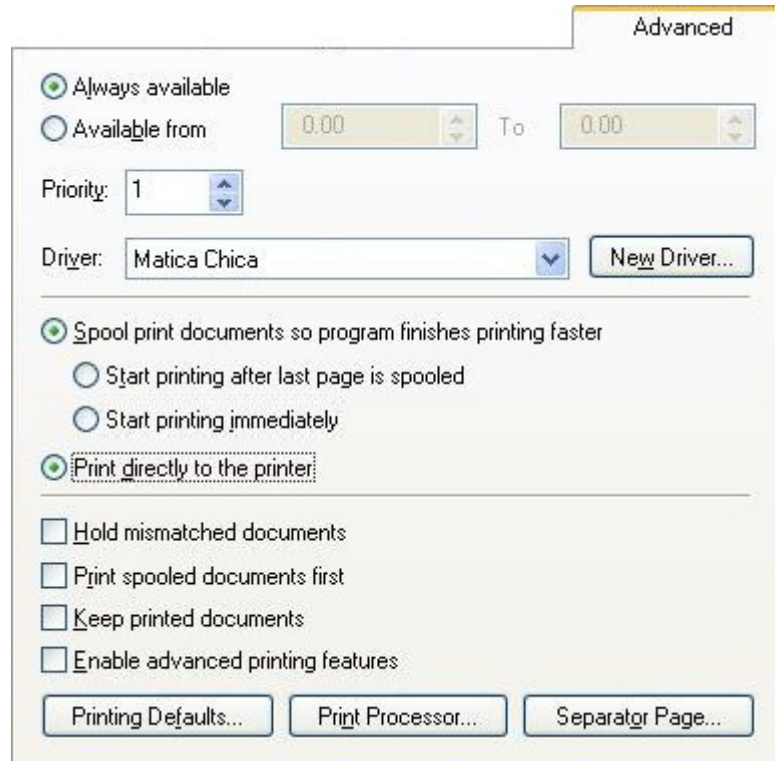


In the Graphic item you could set the image contrast, by changing the Black Sensitivity value (the default value is 10), and the image quality by changing the Quality value (the default value is 0).

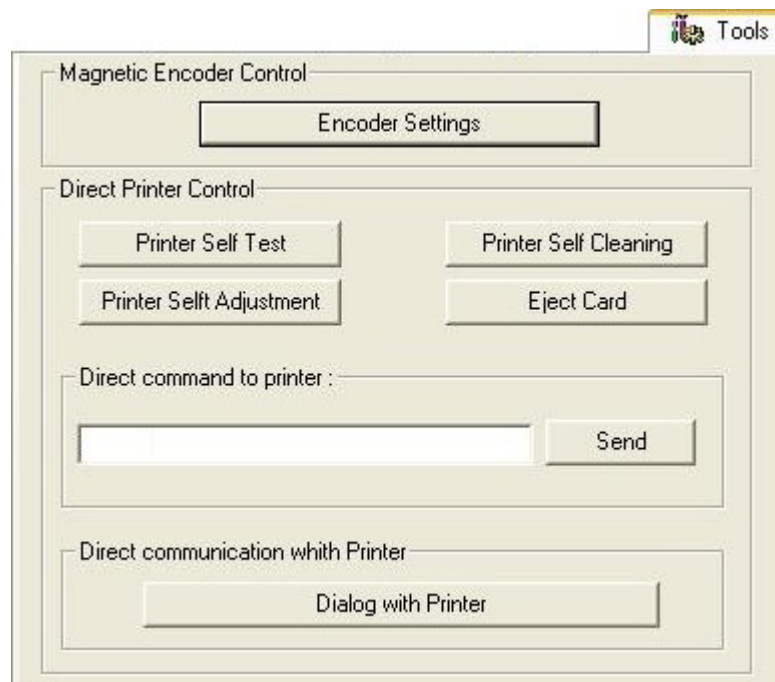
**NOTE:** To improve the image quality you must move the quality indicator from Draft to Higher; on the other side in this way you slow the printing speed. So the more you increase the quality the more you decrease the speed and vice versa.



In the Advanced item you better choose the option named “Print directly to the printer”; in this way the T7 printer doesn’t wait due to previous printing of other printers spooled in the buffer.



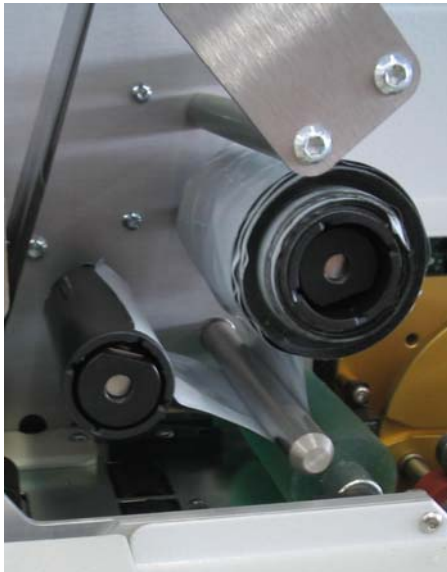
In the Tools item, among other options as making a self test or a self cleaning, you can decide how often to perform the automatic cleaning of the entry roller; for further information see paragraph 5.2.



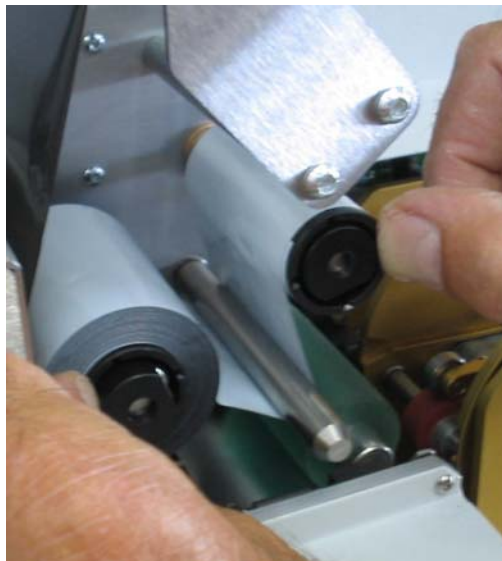
## Chapter 3 – Consumables

### 3.1 Changing Thermal module cleaning tape

When the Thermal Printer cleaning tape is finished (**fig. 1**), you have to replace it, in order to avoid plastic cards from dust before printing. First of all you must remove the used tape from its rolls (**fig. 2**).

**fig. 1****fig. 2**

Now you need to insert the new tape in the two related rolls (**fig. 3**) with the full spool in the left roll, the empty spool in the right one and the ribbon over them. Be careful to put the tape under the shaft between the rolls (**fig. 4**).

**fig. 3****fig. 4**

## 3.2 Changing Thermal module printing ribbon

When the Thermal printing ribbon is finished (**fig. 1**), you must replace it. First of all you had to unhook the print head by pulling the related spring (**fig. 2**), in this way the head lifts up horizontally.



fig. 1

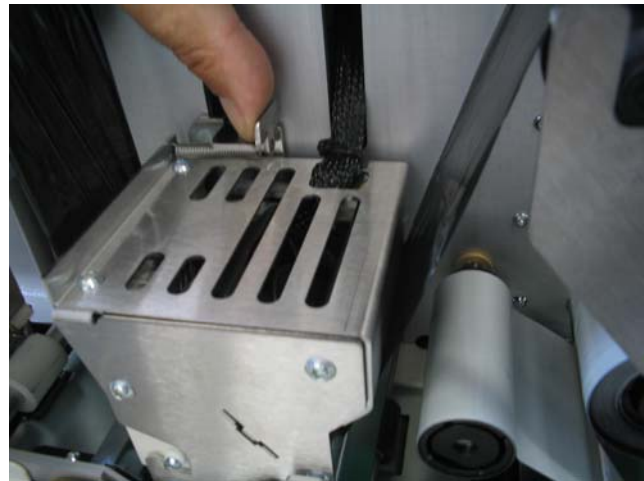


fig. 2

Now it's necessary to remove the used ribbon from its inserts (**fig. 3**).

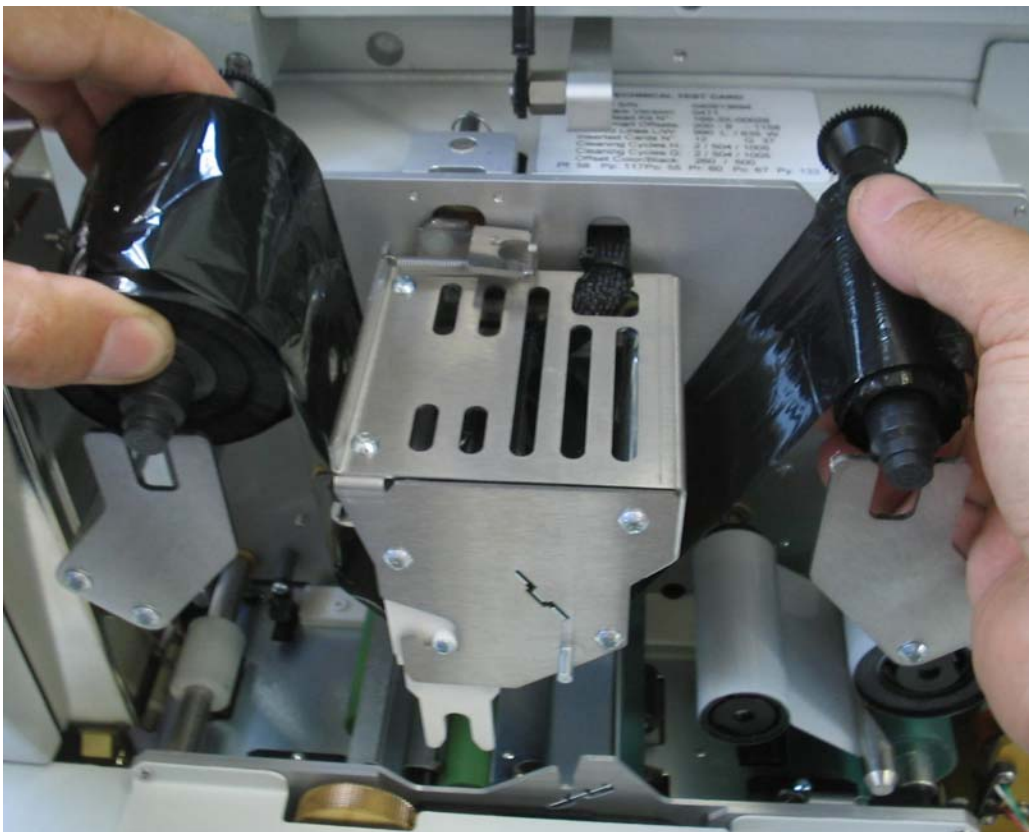


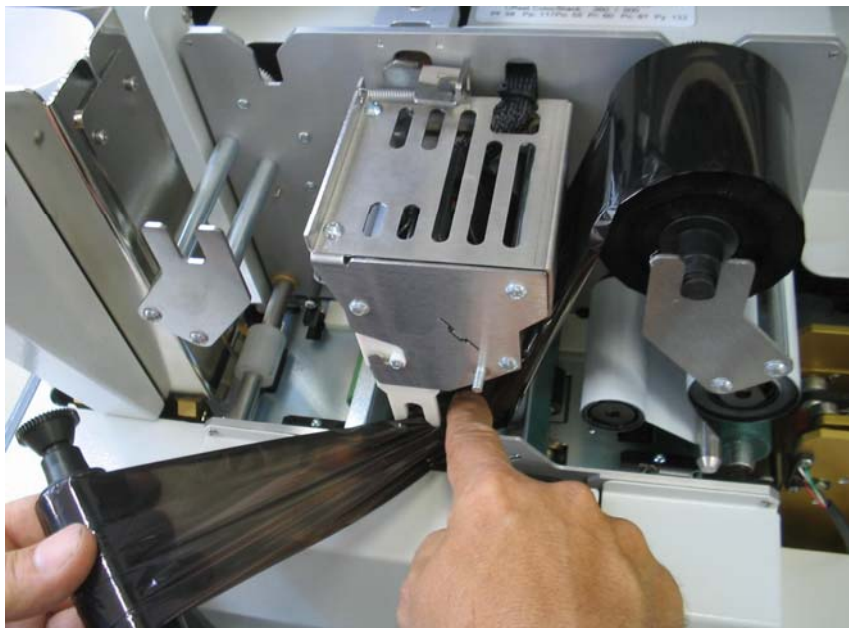
fig. 3

Then you have to put the new ribbon over its inserts, with the full spool of the ribbon in the right inserts and the empty spool in the left ones (**fig. 4**). Be sure that the ribbon runs over its spools, and also that the large ends of the ribbon spools will be in the inner inserts and the narrow ends in the outer ones.



**fig. 4**

The first spool to insert is the full one, then you must unwind the ribbon and pass it under the print head (**fig. 5**).



**fig. 5**

Now you can insert also the empty spool (**fig. 6**).



**fig. 6**

Finally push down the print head (**fig. 7**) in order to hook the related pin to the module (**fig. 8**).



**fig. 7**



**fig.8**

# Chapter 4 – Troubleshooting

The information below will help you to resolve possible problems that could occur when you are using the T7 system.

## 4.1 Nothing prints

### 1. Check the power supply

Ensure that:

- The power supply cable is correctly connected to the system and to a mains plug that is functioning.
- The system is switched on. The green control panel warning light must be on.

### 2. Check the card feeder and the card in the printer

- Check the presence of cards in the feeder.
- Check that no jamming has occurred.

### 3. Check the ribbon

- Check that the ribbon has been correctly installed and that the system cover is properly closed.

### 4. Print a test card

- Ensure that there is a ribbon in the printer.
- Switch off the system.
- Press the control panel push button.
- Switch on the system again, whilst holding the pressure on the push button.
- The green warning light comes on.
- Release the button as soon as the green warning light flashes.
- If the test card prints, the problem is not in the printer.

### 5. Check the printer interface cable

- Check the connection to the computer and to the system.
- Test with another cable of the same type.

### 6. Check the printer driver

- Check the presence of the system driver in the Windows settings.

### 7. Check the computer printing settings

- Ensure that the printer is selected as default printer.

### **8. Check the network configuration**

- If your system is connected to a network, check that it is correctly configured in the network environment. See the documentation relative to your network for more information.

## **4.2 A blank card is ejected from the printer**

### **1. Check the ribbon**

- Check that the ribbon has not run out or cut. Replace or reinstall the ribbon, if necessary.

### **2. Check the system interface cable**

- Check the connection to the computer and to the system.
- Test with another cable of the same type.

### **3 Elements of the print head may be damaged**

- Print a test card (see previous paragraph).
- If the test card does not print, replace the print head.

## **4.3 The print quality is not satisfactory**

### **1. The contrast and luminosity settings must be modified**

- Lack of contrast and color saturation; increase the contrast and luminosity settings in the system driver configuration.

### **2. The type of card used may be inappropriate**

- Check if the type of card used corresponds to the required specifications (see paragraph 1.2).
- The texture of the card is rough or not perfectly flat.
- Print test with another type of card.

## **4.4 Partial or incorrect printing**

### **1. Check the settings defined for the printing**

- Check that no element of your page setup is outside the print margins.
- Check the orientation of the selected document in the system driver configuration (Landscape or Portrait).

**2. Check the printer interface cable**

- If unusual characters print, check that you are using the interface cable appropriate to your system.
- Check the connection to the computer and to the system.
- Test with another cable of the same type.

**3. Check the cleanliness of the printer**

- Clean the inside of the printer, the dust-removing roller and the print head if necessary (see chapter 5).

**4. Check the cleanliness of the cards**

- Check that the cards are stored in a dust-free location.

**5. Check the cleanliness of the print head**

- See the procedure for cleaning the print head in the paragraph 5.1.

**6. Check the ribbon**

- Its location in the printer.
- Its correct winding path.

**7. Check the print head**

- If horizontal (blank) lines appear on the card, some print head elements may be clogged or damaged.
- Clean the print head as shown in paragraph 5.1.
- If the problem is not resolved after cleaning, replace the print head.

## 4.5 There is a card jam in the printer

**1. Remove the cards as follows:**

- Open the printer cover and remove the ribbon (see paragraph 3.2).
- Remove the card by pushing it by hand towards the printer outlet.
- Replace the ribbon (see paragraph 3.2) and re-close the printer cover.
- Press on the control panel push button.

**2. To prevent card jams:**

- Ensure that the thickness of the card used corresponds to the specifications given in the paragraph 1.2.
- Check that the cards are not bulging.
- Ensure that the cards are not stuck together.

## Chapter 5 – Cleaning

To ensure that the system operates correctly, it is necessary to carry out periodic cleaning of some of the components that otherwise could cause problems in cards production.

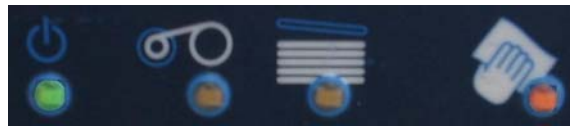
To clean all the transport rolls of the system you must absolutely use isopropyl alcohol; at this purpose you can use an apposite cleaning card supplied by MATICA®.

It is recommended to use the aforesaid products only for the indicated components, in order to avoid damaging the system.

It is also useful to carry out a periodic general cleaning of the system, by using a vacuum cleaner every week or 10,000 cards performed.

### 5.1 Thermal Printer cleaning

When the Thermal Printer module has to be cleaned, the cleaning red led on the system console switches on (**fig. 1**).



**fig. 1**

To clean the print head you must use a cleaning kit provided with a cleaning card (**fig. 2**).



**fig. 2**

Remove the printing ribbon as shown in paragraph 3.2, being sure that the print head is down. Then insert the cleaning card into the Input Hopper (**fig. 3**) and push it until the Thermal module.

**fig. 3**

Push and hold the right button on the module console (**fig. 4**).

**fig. 4**

Now the card passes under the print head (**fig. 5**) and, at the end of the cleaning cycle, it goes into the Output Hopper (**fig. 6**). Finally you must insert again the printing ribbon as shown in paragraph 3.2.

**fig. 5****fig. 6**

## 5.2 Automatic cleaning sequence

Using the T7 driver it's possible to decide how often has to be performed the printer cleaning process. First of all you must access the driver properties (see paragraph 2.5) and choose the Tools item. Now you better check the printer specifications by clicking the "Dialog with printer" button; then you have to come back to the Tools window.

The step for each automatic cleaning sequence by default is 100. The printer counts the number of cards inserted and, when the amount of card passed is equal to the step value, the printer automatically performs the cleaning process of the entry roller. To change the default step value you need to enter a command in the box named "Direct command to printer" and click the Send button.

The command must have the following syntax: `Pcg;value`  
`Pcg` define the command for the automatic cleaning sequence  
`value` define the number of cards for the next step of the cleaning process

if `value = 0` you disable the automatic cleaning sequence  
 if `value = 1` to `65535` you define the next automatic cleaning sequence

