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# *Heat Roller Unit User's Guide*

*For Nisca Model PR5302*



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# 1.

## *Introduction*

### **Welcome!**

Congratulations on your purchase of the Nisca PR5302 Optional Heat Roller Unit. This unit works in conjunction with the Nisca PR5300 Direct Card Printer and provides these features:

- ❖ Applies a variety of different hard coat overlaminates to printed cards providing increased card durability.
- ❖ Applies a variety of different soft coat overlaminates, such as hologram film, increasing card security.
- ❖ Provides the ability to place a hologram mark at a specific location on the card.
- ❖ Offers high-speed lamination for standard CR-80 cards.
- ❖ Can be daisy-chained together to apply two different types of laminate material.
- ❖ Sensitive position adjustment settings to optimally locate the laminate on the card.
- ❖ Provides a sleep mode to conserve energy.

### **About This User's Guide**

This User's Guide contains important safety information, along with detailed instructions on how to install, use, and maintain the Heat Roller Unit. Please read this User's Guide in its entirety for instructions on how to efficiently and effectively set up your Heat Roller Unit.

This guide uses the following conventions:



**Warning**

**This warning symbol means danger. You are in a situation that could cause bodily injury. Information presented must be followed carefully to avoid harm.**



**Caution**

This caution symbol means reader be *careful*. In this situation, the user might do something that could result in equipment damage.

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 **Note** This note symbol means *reader take note*. Notes contain important information and helpful suggestions about your Heat Roller Unit.

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## General Site Requirements

When choosing a site for the PR5302, consider the following recommendations:

- ❖ Select a site that is out of direct sunlight.
- ❖ Placement should be on a sturdy platform and off the floor.
- ❖ Platform should be free from vibration.
- ❖ Environment should be free from high humidity and dust.
- ❖ Environment should have a relatively stable temperature.
- ❖ Provide enough space to allow adequate ventilation.
- ❖ Select a location that allows easy access to all sides.

## Important Safety Instructions

Before using your Heat Roller Unit, read the following safety instructions to make sure you use the Heat Roller Unit safely and effectively:

- ❖ Turn off and unplug the Heat Roller Unit before cleaning.
- ❖ Do not spill any liquids in or on the Heat Roller Unit.
- ❖ Always prevent debris from entering the Heat Roller Unit.
- ❖ Do not place any heavy objects on the Heat Roller Unit.
- ❖ Use only a power source indicated in the electrical requirements section.
- ❖ Do not place the Heat Roller Unit on an unstable surface or near a radiator or a heating vent.
- ❖ Do not place the Heat Roller Unit near sources of heat or electromagnetic interference.
- ❖ Except as specifically indicated and explained in this User's Guide, do not attempt to service the Heat Roller Unit yourself.
- ❖ When moving the equipment, always be sure to turn off the power prior to moving.
- ❖ Do not let the power cord become damaged or frayed.
- ❖ Do not block the air vents or fan on the Heat Roller Unit.
- ❖ Do not touch any part inside the Heat Roller Unit except as directed by this User's Guide.
- ❖ Do not use the Heat Roller Unit for purposes other than its intended use.

## Electrical Requirements



**Caution** It is important to verify the power requirements located on the back of the Heat Roller Unit before connecting it to any power source. Plugging the Heat Roller Unit into an incorrect power source could result in equipment damage.

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The two types of potential power sources are:

- ❖ 100 ~ 120 VAC at 50 ~ 60 Hz, or
- ❖ 200 ~ 240 VAC at 50 ~ 60 HZ.

Once the power source has been identified, you'll need:

- ❖ Single phase, 3-wire grounded receptacle.
- ❖ If an extension cord is used with the Heat Roller Unit, verify it's rated for a minimum of 125 VAC, 10 Amps or 250 VAC, 10 Amps.

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 **Note** If you have any doubt about the correct power source, DO NOT attempt to use the unit. Contact your authorized reseller for assistance.

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**Warning** Never operate the Heat Roller Unit in a location where the operator, computer, or Heat Roller Unit could get wet. Personal injury could result. The Heat Roller Unit must be connected to a grounded electrical power supply and properly protected against electrical surges and grounding faults.

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## Physical Requirements

The PR5302 requires a sturdy platform that can accommodate its weight and physical dimensions. The Heat Roller Unit weighs 28.7 pounds (13 kilograms). The dimensions are:

- ❖ Height: 15.75" (400 mm)
- ❖ Width: 7.08" (180 mm)
- ❖ Depth: 11.81" (300 mm)

## Environmental Requirements

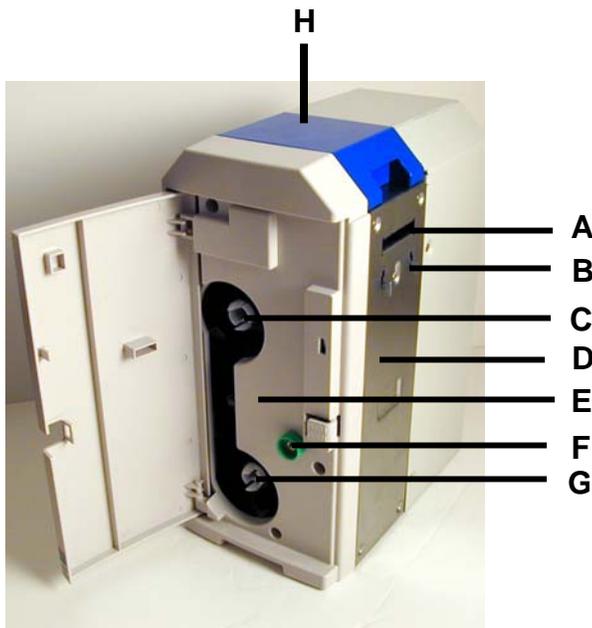
The PR5302 Heat Roller Unit requires the following environmental conditions for optimal operation:

- ❖ Operating temperature range of 50° – 95° F (10° – 35° C). To ensure best performance, temperatures should be in the range of 68° – 77° F (20° – 25° C).
- ❖ Operating relative humidity range of 35% – 80% non-condensing.

# 2.

## Getting Started

### Heat Roller Unit Features



### Front / Right Side of the Heat Roller Unit

**A. Card Entry**

- ❖ The card enters here for lamination when leaving the printer.

**B. Printer / Heat Roller Unit Attachment**

- ❖ Allows the printer and Heat Roller Unit to attach together.

**C. Laminate Ribbon Supply Spool**

- ❖ Used to load new laminate ribbon.

**D. Side Cover**

- ❖ Exposes the capstan and platen rollers.

**E. Front Inside Cover**

- ❖ View of the inside of the Heat Roller Unit.

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**F. Manual Rotation Knob**

- ❖ Used to manually advance the rollers.

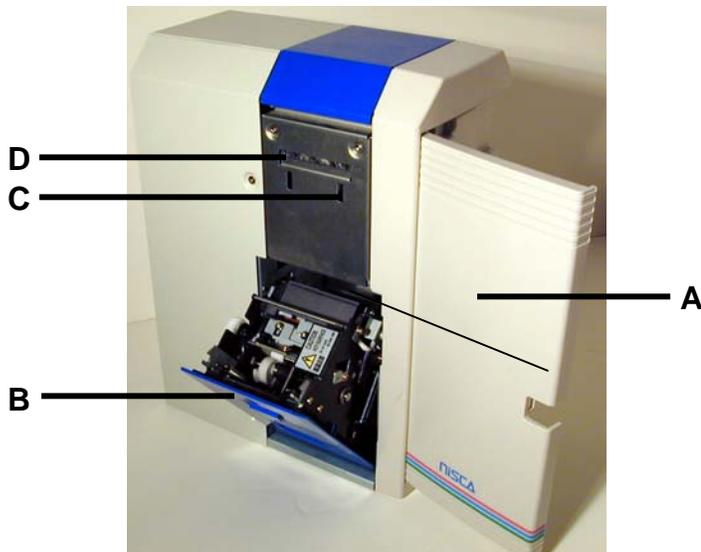
**G. Laminate Ribbon Take-Up Spool**

- ❖ Take-up spool for used laminate ribbon.

**H. Flip/Turn Cover**

- ❖ Opens for easy access to the flip/turn rollers.

**Left Side of the Heat Roller Unit**



**A. Front Access Cover**

- ❖ Opens to allow access to the laminate ribbon.

**B. Heat Lamp Panel**

- ❖ Opens to allow access to the inside of the heat lamp.

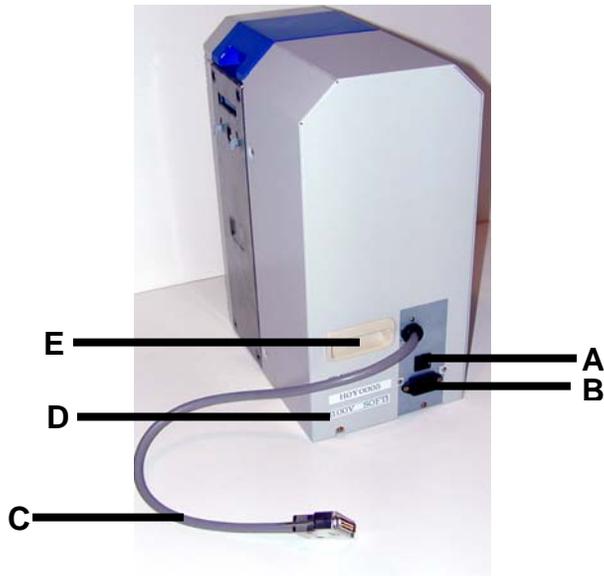
**C. Card Stacker Mounting Slots**

- ❖ Attachment for second Heat Roller Unit or card stacker.

**D. Card Eject Exit**

- ❖ Card is ejected after lamination has occurred..

## Rear of the Heat Roller Unit



### A. Circuit Breaker

- ❖ Protection device that stops current if there is a direct short or excessive heat

### B. Power Receptacle

- ❖ Supplies power to the Heat Roller Unit

### C. Printer Connecting Cable

- ❖ The cable used to connect the Heat Roller Unit to the printer.

### D. Power Rating Label

- ❖ Identifies the correct power source for the Heat Roller Unit.

### E. Handle

- ❖ Used to easily lift the Heat Roller Unit.

## Unpacking the Heat Roller Unit

Follow these steps to unpack the Heat Roller Unit. Be sure to select a location that meets the general requirements as stated above.



### Caution

**IMPORTANT!** The Heat Roller Unit must be placed on a level surface, in a dust free environment next to the PR5300. It is essential to be able to access the Heat Roller Unit from all sides for its installation. It is also recommended that you have one or more persons to assist with unpacking the Heat Roller Unit.

1. Place the shipping carton on a firm level surface. While unpacking, inspect the carton to ensure no damage occurred during shipping.
2. Remove the Heat Roller Unit and accessory box from the packing box.

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3. Open the accessory box and verify the following items are included:

- User's Guide
- Power Supply Cord
- Laminate Ribbon Supply Roll
- Laminate Ribbon Take-Up Spool

If any items are missing, please contact your authorized reseller.

4. Remove all packing tape.
5. Remove all packing material from the heat lamp unit.



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**Note** Keep all packing material in case you need to move or re-ship the Heat Roller Unit.

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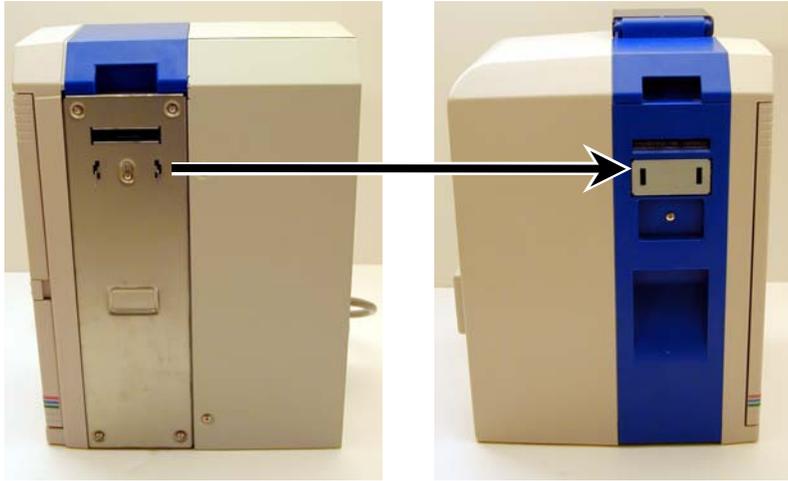
### Connecting the Heat Roller Unit to the Printer



**Caution** **IMPORTANT!** To prevent errors and jams, make certain that the printer and Heat Roller Unit are on a flat, stable surface. Be sure the printer and the computer are turned OFF.

To connect the Heat Roller Unit to the printer, refer to the following steps:

1. Place the Heat Roller Unit next to the printer.
2. Lift the Heat Roller Unit and insert the metal tabs on the side of the unit into the card stacker slots on the side of the printer.



3. After combining the units, be sure all legs are supported on all aspects of the printer and Heat Roller Unit and the entire unit is level.
4. Insert the cable from the Heat Roller Unit into the options port on the back of the printer. Tighten the screws.

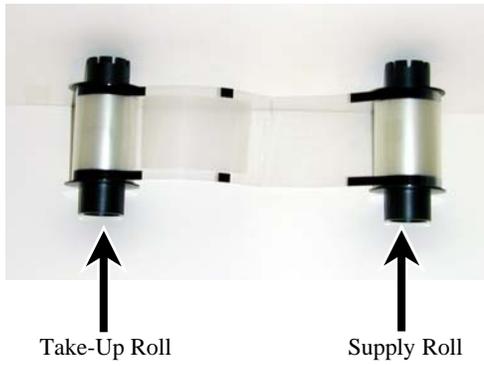


5. Attach the card stacker into the mounting slots.
6. Insert the power cord into the power receptacle on the rear of the Heat Roller Unit. Plug the other end into an available wall outlet.

## Loading the Laminate Ribbon

The loading process for differing laminate ribbon is the same. Refer to the following steps to load any type of laminate ribbon:

1. Remove new laminate ribbon from its packaging and place on the supply roll.



2. Remove the adhesive tape from the new laminate ribbon and feed the ribbon onto the take-up roll. Turn a couple of turns to load the laminate ribbon.
3. Open the heat lamp panel by depressing the lever on the left.



4. Open the front access cover and slide the laminate ribbon rollers onto the two white drive hubs. The notches on the take-up spool and supply roll should face inward.



5. Push the laminate rolls all the way in until the spools click into place.
6. Close the heat lamp panel and close the front access cover. The lamination drive spools will automatically engage with the core notches when the printer is powered.

## Turning On The Printer and Configuring Lamination Settings

The PR5302 offers a variety of different settings based on various laminate ribbon. When powering up the printer and Heat Roller Unit, the printer automatically detects the Heat Roller Unit. Before using the Heat Roller Unit for the first time, the laminate type and heat settings must be verified. To access these settings, enter the User Mode on the printer by pressing and holding the Menu button for 3 seconds or longer. Refer to the following steps:

1. Press and hold the Menu button to enter User Mode.



2. Press the EXE button to enter the Menus.



3. Press the Menu button until the Ribbon Type sub-menu is displayed.



4. Press the EXE button to enter the Ribbon Type sub-menu.



5. Press the Menu button until “H. Roller1 Ribbon” is displayed. The laminate ribbon type may be selected by pressing the EXE button. The available types are:
  - ❖ Hard Coat Type 1: This is used for clear 1 mil patch ribbon or holographic ribbon with 1.5 mil carrier.
  - ❖ Hard Coat Type 2: Used for holographic 1 mil patch ribbon with 2.0 mil carrier.
  - ❖ Soft Coat Type 1: Used for softcoat / thinfilm ribbon that is not registered.
  - ❖ Soft Coat Type 2: Used for softcoat / thinfilm ribbon that is registered (with an eyemark).
  - ❖ No Ribbon.

- Once the laminate ribbon has been identified and correctly set, press and hold the CLEAR button while also pressing the EXE button at the same time. This accesses the heat adjustment sub-menu.



- To ensure an adequate bond between the laminate and card, the heat and travel speed settings need to be optimized. The default settings are 0 for travel speed and 0 for heat. Some common problems can be fixed by changing the travel speed and/or laminator heat settings. Press the EXE button to increment the value and the CLEAR button to decrement the value.



- Each laminator may need slightly different heat and travel speed settings for the same ribbon. Print a test card and adjust settings using the above steps until lamination is optimal.

# 3.

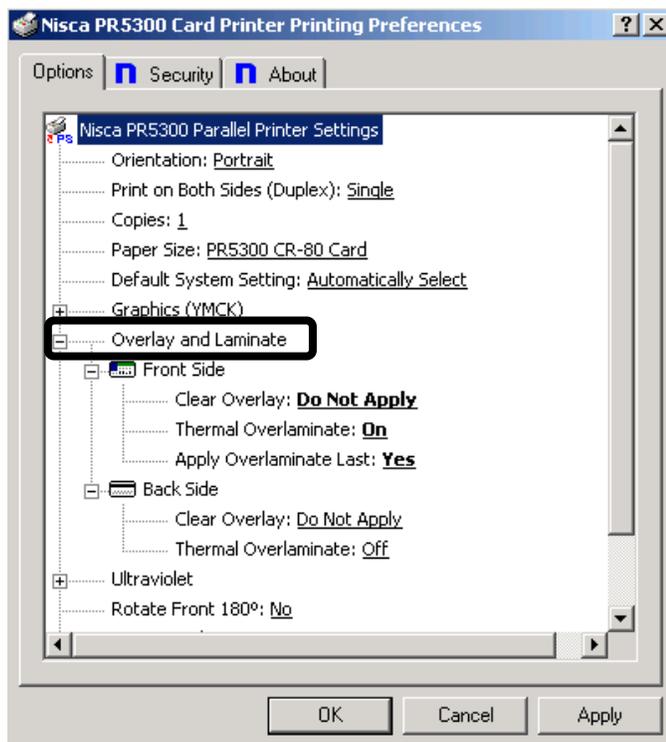
## *Using the Heat Roller Unit*

### Configuring Heat Roller Unit Preferences

The PR5302 Heat Roller Unit has a variety of options that can be configured in the PR5300 Printer Preferences within the printer driver. To open the PR5300 Printer Driver Printing Preferences, refer to the following steps:

#### Windows® 2000 / Windows® XP

1. Click on the Start button, point to Settings, and select printers.
2. Click on the Nisca PR5300 card printer with the right mouse button, and select “Printing Preferences...”.
3. To view the available options, click the “+” button to the left of Overlay and Laminate.



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## Overlay and Laminate Options

### Overlay and Laminate

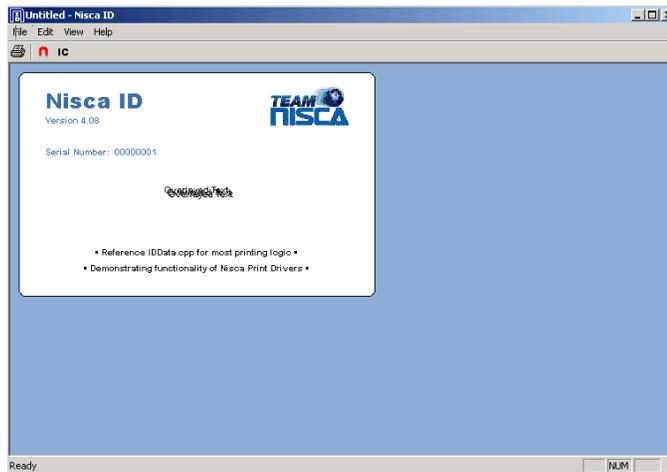
- ❖ **Thermal Overlamine:** A thicker protective layer applied by the attached Heat Roller Unit. The Heat Roller Unit can apply a thin film roll that can sometimes contain holographic images for providing a level of card durability and security.
- ❖ **Apply Overlamine Last:** Overlamine should be applied last to reduce the risk of card jams caused by curled cards being pulled back into the printer.

### Printing a Sample Card

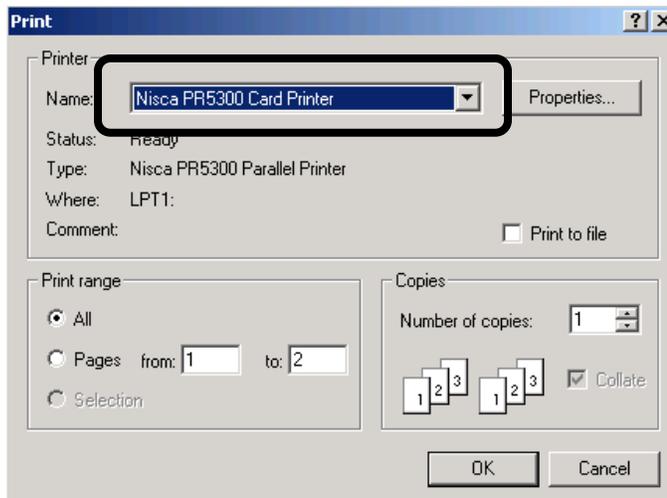
A sample application is included with the installation of the printer driver. To print a sample card, refer to the following steps:

#### Windows® 2000 / Windows® XP

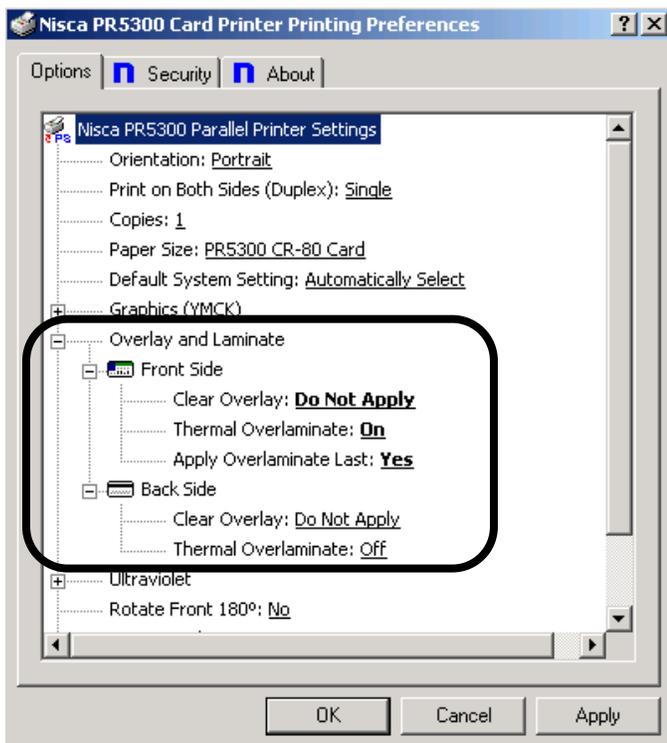
1. Turn on the power to the printer and Heat Roller Unit. Be sure the green LED on the LCD panel is lit and the LCD display shows normal mode on the printer.
2. Confirm that all supplies are loaded.
3. Click Start » Programs » Nisca PR5300 Printer » Nisca ID.
4. The sample application will load.



5. Select File » Print.



6. Select the Nisca printer and select Properties. View the available options and make any necessary changes.



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**Note** Whenever laminating with hard coat type laminate, the setting for clear overlay on the front and back side must be set to Do Not Apply to ensure proper laminate adhesion.

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7. Click OK to print the sample card and test the lamination settings.

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## C H A P T E R

# 4.

## *Maintenance*

Your Nisca PR5302 Heat Roller Unit is built to require a minimum amount of maintenance. Nevertheless, there are a few procedures you need to perform on a regular basis or as needed to ensure maximum performance.

CLEANING	SCHEDULE	CLEANING TOOL
Platen Roller	10,000 prints	Alcohol Swab
Capstan Roller	10,000 prints	Alcohol Swab
Flip/Turn Transport Rollers	10,000 prints	Alcohol Swab

**Caution**

**IMPORTANT!** The surface of the heat rollers can exceed 150° C when in operation. Turn the power OFF and let the heat rollers cool for at least 30 minutes before cleaning.

### Basic Automated Cleaning

A basic automated cleaning is recommended after every ribbon change for the printer. For this maintenance procedure, you will need a printer Cleaning Card, available from your authorized reseller. The Cleaning Card contains adhesive backing causing dust particles and debris on the rollers to adhere to the card. Please only use genuine Nisca Cleaning Cards. Use the following procedure for performing a basic automated cleaning:

1. Enter the User Mode by pressing and holding the Menu button on the printer for 3 seconds.



2. Press EXE button to access the User Mode menus.



3. Press the Menu button to navigate to the Cleaning sub-menu.
4. Open the card feeder door on the printer and remove any blank cards.
5. Remove the protective paper backing from both sides of the cleaning card.



6. Insert the Cleaning Card into the feed gate on the printer until the card stops.



7. Press the EXE button to begin the cleaning process.
8. Remove the card when the process is completed and discard.

## Manual Cleaning

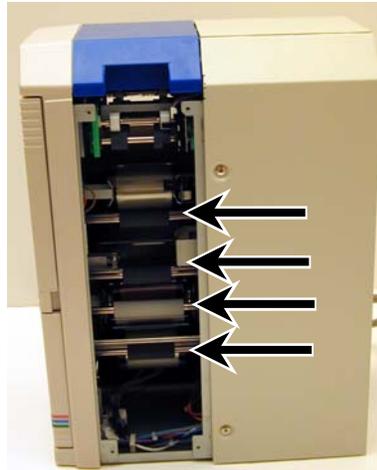
As you use your printer and Heat Roller Unit, dust and other particles may accumulate inside the printer before you actually need to replace the ribbon. Periodically, manually cleaning procedures should be performed to remove dust and other contaminants.

### Cleaning the Platen and Capstan Rollers

1. Power OFF the printer, Heat Roller Unit and remove the power cord.
2. Remove the 4 phillips screws on the side cover of the Heat Roller Unit.



3. Open the front access cover of the Heat Roller Unit by depressing the release button.
4. With the front access cover open, turn the manual rotation knob clockwise to advance the rollers and clean the capstan and platen rollers with an alcohol swab.



5. After cleaning the capstan and platen rollers, wait 5 minutes before reusing.

### **Cleaning the Flip/Turn Transport Rollers**

1. Power OFF the printer, Heat Roller Unit and remove the power cord.
2. Open the front access cover of the Heat Roller Unit by depressing the release button.
3. Open the flip/turn cover and manually rotate the flip/turn transport roller 180° by moving the unit counter clockwise.
4. With the front access cover open, turn the manual rotation knob clockwise to advance the rollers.



5. Clean each of the flip/turn rollers (white plastic and rubber) using an alcohol swab.
6. After cleaning the flip/turn rollers, wait 5 minutes before reusing.

## CHAPTER

# 5.

## *Troubleshooting*

This chapter offers explanations to potential problems you may experience with your PR5302 Heat Roller Unit. The LCD on the PR5300 Printer will alert the operator to problems and will display the error condition. The suggestions in this chapter should, in most cases, solve the problem. If you still have difficulty after trying these suggestions, contact your authorized reseller for technical assistance.

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**Note** Prior to contacting your authorized reseller for assistance, make note of the error message along with the error code located under the actual description.

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In most cases, press the Clear button after identifying the error to return the Heat Roller Unit and printer back to the ready to print status. If the message “Cannot Recover/Please Reset” appears, press and hold the Clear button for more than 3 seconds while the Printer / Heat Roller Unit performs a soft reset.

### Interpreting General LCD Messages

LCD SCREEN MESSAGE	PROBABLE CAUSE	ACTION
H.Roller Cover is Open	The front access cover, flip/turn cover, or heat lamp panel is open.	❖ Close all covers and panels until they snap closed.
Ribbon Wind up miss	The laminate ribbon is not installed correctly; the engagement teeth on the take-up or supply spools are broken; the laminate ribbon type is set incorrectly.	❖ Verify the laminate ribbon installation using the instructions in Chapter 2. If the laminate ribbon has broke, clear tape may be used to affix it back onto the spool. ❖ Inspect the take-up and supply spools. Replace the spools if either are damaged. ❖ Enter User Mode and verify the H.Roller1 ribbon settings match the laminate ribbon installed.
No Power to the Heat Roller	No electric power is supplied to the heat roller or no heat after a certain time.	❖ Verify the power cord is connected to the back of the Heat Roller Unit and the

LCD SCREEN MESSAGE	PROBABLE CAUSE	ACTION
Service Call	time. Fatal error encountered or no power to the Heat Roller Unit.	power source is correct. ❖ Verify the power cord is connected to the back of the Heat Roller Unit and the power source is correct. ❖ Contact your authorized reseller for additional assistance.

## Interpreting LCD Jam Messages

If a card becomes jammed inside the Heat Roller Unit, the LCD will indicate the approximate location of where it is jammed. Try to eject the jammed card first by pressing the Clear button. If the card does not eject automatically, refer to the following table for a list and cause of the LCD message.



**Caution** **IMPORTANT!** The surface of the heat rollers can exceed 150° C when in operation. When clearing a jam, turn the power OFF and let the heat rollers cool for at least 30 minutes.

LCD SCREEN MESSAGE	PROBABLE CAUSE	ACTION
Card Jam HR Unit Area11	A card is jammed in the flip/turn unit of the Heat Roller Unit.	❖ Power OFF the printer and Heat Roller Unit. ❖ Open the cover to the flip/turn unit. ❖ Use the dial to advance the card to a position easier for removal. ❖ If this error occurs again, clean the rollers in the flip/turn unit. See Chapter 4.
Card Jam in the Hologram Transfer Area	A card is jammed in the heat lamp.	❖ Power OFF the printer and Heat Roller Unit. ❖ Open the front access cover and flip/turn cover. ❖ Rotate the flip/turn unit to a vertical position. ❖ Turn the manual rotation knob clockwise to move the card into the flip/turn unit. ❖ If the card still cannot be accessed, remove the power cord and let the heat rollers

LCD SCREEN MESSAGE	PROBABLE CAUSE	ACTION
		cool for at least 30 minutes. Remove the card manually. ❖ Clean the flip/turn, platen, and capstan rollers. See Chapter 4.

## General Troubleshooting Suggestions

PROBLEM	ACTION
Abnormal communications	<ul style="list-style-type: none"> <li>❖ Verify the power cord is plugged in securely on both ends and the Heat Roller Unit is ON. Confirm power is applied by cycling the power switch on the printer.</li> <li>❖ Verify the ROM version of the heat roller is ExH. Roller/1.0 in the User Mode ROM menu.</li> <li>❖ Ensure the Heat Roller Unit cable is securely connected to the back of the printer.</li> <li>❖ Contact your authorized reseller.</li> </ul>

## Where to get additional help

If you work with an authorized Nisca distributor or value added reseller, contact your reseller for assistance. You may also contact us at one of the following sources:

Telephone: (732) 271-7367  
 Sales email: info@teamnisca.com  
 Technical Support email: techsupport@teamnisca.com  
 Website: www.teamnisca.com

# APPENDIX

# A.

## ***PR5300 User Mode Menu Map (PR5302)***

The following shows a tree structure of available menus when the PR5302 is connected to the PR5300. For the PR5300 User Mode Menu Map, please refer to the PR5300 User's Guide.

USER MODE MAIN MENU	RIBBON TYPE MENU	HEAT ADJUSTMENT MENU
Card Count	Ribbon Type — <i>Entry</i>	Heat Adjustment — <i>Entry</i>
Total Count	Printer Ribbon ▶ <i>Ribbon Selection</i>	Heat Speed Front ▶ <i>Values from: -5 ~ 5</i>
Image Setup ↗	H.Roller1 Ribbon ▶ <i>Laminate Ribbon Selection</i>	Heat Temperature ▶ <i>Values from: -5 ~ 5</i>
Error Buzzer ▶ <i>On / Off</i>	Heat Adjustment <sup>1</sup> ↗	Return to Parent Menu
Ribbon Type ↗	Return to Parent Menu	Return to Normal Menu
Printer Cleaning ↗	Return to Normal Menu	
Printer Status ↗		
ROM Version ↗		
Setup Data Reset		
Return to Normal Mode		

<sup>1</sup> After selecting the correct laminate ribbon type, press and hold the CLEAR button while also pressing the EXE button to access the heat adjustment sub-menu.

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A P P E N D I X

# B.

## *Printer Specifications*

### **PR5302 Heat Roller Unit**

Printing system	❖ Heat transfer printing
Print medium	❖ PVC
Medium size	❖ CR-80 (54x86mm)
Print area	❖ Entire card surface
Printing speed	❖ 30 seconds maximum
Transfer laminate	❖ TEAMNisca protective / holographic ribbon
Communication	❖ RS422, printer to heat roller
Power Source	❖ 100 ~ 240 Volts AC, 50 ~ 60 Hz.
Dimensions	❖ 15.75" (H) x 7.08" (W) x 11.81" (D) ❖ (420mm x 180mm x 300mm)
Weight	❖ 28.7 lbs. / 13 kg.