

# User Manual

*P75*



## ***FOREWORD***

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This manual contains installation and operation information for the Polaroid 75 Series card printers manufactured by Polaroid Corporation.

## ***RETURN MATERIALS AUTHORIZATION***

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Before returning any equipment (camera or printer) to Polaroid Corporation for in-warranty or out-of-warranty repair, contact Repair Administration for a Return Materials Authorization (RMA) number. Repack the equipment in the original packing material and mark the RMA number clearly on the outside. Ship the equipment, freight prepaid, to the address given to you by Repair Administration.

## ***COPYRIGHT NOTICE***

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## ***TRADEMARKS***

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Polaroid 75 is a pending service mark. Polaroid is a registered trademark of Polaroid Corporation, Cambridge, MA. All other trademarks or registered trademarks are marks of their respective holders.

## WARRANTY INFORMATION

### WE NEED TO HEAR FROM YOU!

To establish Your Warranty Period And Provide Access To Technical Support, Send Us your Warranty Registration Card Today!

Polaroid warrants the mechanism, control electronics and power supply, under normal use and service, to be free from defects in material and workmanship for a period of twelve (12) months from the date of purchase by the end user. Polaroid warrants the print head, under normal use and service, to be free from defects in material and workmanship for a period of twelve (12) months from the date of purchase by the end user. Proof of purchase is required. If proof of purchase cannot be established, shipment date to the original buyer (dealer or distributor) will be used to establish the warranty period.

Failure to exercise caution to protect the equipment from electrostatic discharge damage, adverse temperature and humidity conditions or physical abuse, including, but not limited to, improper packaging, shipping, service or repairs performed by personnel not authorized by Polaroid may void the warranty. Failure to use only Polaroid approved media may void the warranty.

Polaroid will, at its option, repair or replace the equipment or any parts which are determined to be defective within this warranty period, and which are returned to Polaroid.

The warranty set forth above is exclusive and no other warranty, whether written or oral, is expressed or implied. Polaroid specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

## DECLARATIONS OF CONFORMITY



European Council Directive		Compliance to Standards	
89/336/EEC modified by 92/31/EEC and 93/63/EEC	EMC Directive	EN 55022-B	RF Emissions control
	EMC Directive	EN 500082-1, 1992	Immunity to Electromagnetic Disturbances
73/23/EEC modified by 93/68/EEC	Low voltage Directive	EN 60950	Product Safety



**Model: P75** conforms to the following specification:

**FCC Part 15, Subpart A, Section 15.107(a) and Section 15.109(a) Class A digital device**

### Supplemental Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following Two Conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### Note:

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## INDUSTRY CANADA NOTICE

This device complies with Industry Canada ICS-003 class A requirements.

Cet équipement est conforme à l'ICS-003 classe A de la Norme Industrielle Canadienne.

## ***INTRODUCTION***

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Thank you for choosing the P75 Plastic Card Printer.

These printers produce cards ideal for personalised identification, access control, visitor, membership, promotion and luggage card, badges and tags.

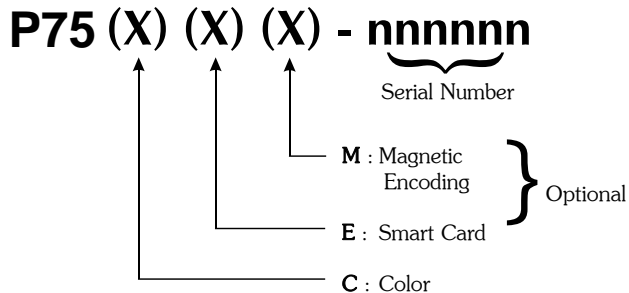
This manual guides you to an efficient start up and operation of your new Card Printer.

### **P75 PRINTER MODELS**

The Polaroid Product Number tells a story:

Here is a quick review of the Polaroid Card Printer Series numbering and lettering system to help you.

The P75 Plastic Card Printer employs Dye Sublimation and Resin Thermal Transfer technologies. Model numbers include identifiers that specify options are shown using the following lettering conventions:



This information can be found on the printer serial number panel and is also shown on the test card.

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## ICONS

Throughout this manual, different icons highlight important information, as follows:



Important general information



Mechanical hazard, such as one associated with moving parts, capable of resulting in equipment damage or personal injury.



Electrical hazard, such as an exposed voltage point, capable of causing electrical shock and personal injury.



An area where electrostatic discharge (ESD) can cause component damage. Use a grounding wrist band.



Elevated temperature hazard, capable of producing a burn.



Keep Card Printer clean by minimizing cover open time.

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# **1**

## ***GETTING STARTED***

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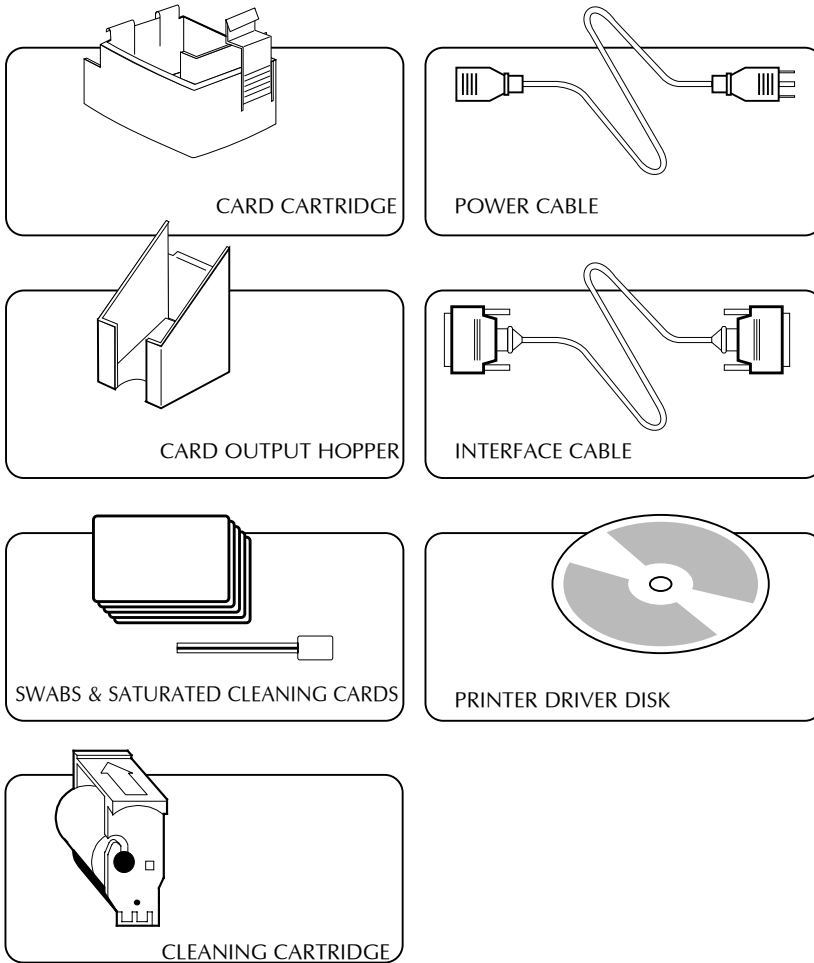
### ***UNPACKING YOUR CARD PRINTER***

Your P75 printer ships in a carton and protective anti-static bag. Keep all packing material in case you need to move or re-ship the printer.

While unpacking, inspect the carton to ensure that no damage occurred during shipping.

Please ensure that you have a clean and nearly dust free environment for proper operation and storage of the printer.

In addition to user documentation, make sure the following items are included with your P75 printer:



If any items are missing, please contact your dealer.

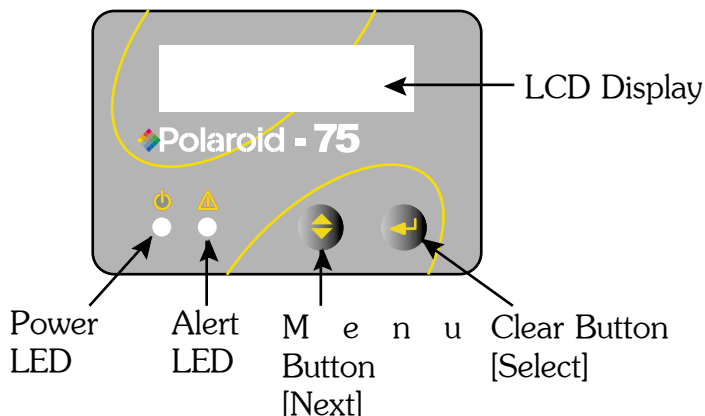
To reorder, please refer to Appendix C of this manual.



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## **INDICATORS AND CONTROLS**

Your P75 printer has an LCD Display, two LED's and two panel buttons.



**LCD Display :**      **The 16 character LCD Display is used for :**

- Showing the printer's current status
- Providing operator and service messages (Chapter 5)

**LED's :**              **The two LED's are used for :**

- Green: Power LED
- Amber: Alert LED (with beeper)

This Alert LED is on when an error condition exists.  
The Beeper will sound three alert "Beeps" and the LCD Display will show the associated error message.

**PANEL  
BUTTONS:**              **The Menu Button (left) is a push button used for:**

- bringing printer into Menu Mode when pressed with the printer showing READY on the LCD Display.
- using in Menu Mode to scroll through Menu Options.

**The Clear Button (right) is a push button used for:**

- clearing an error status (when LCD Display shows an error report and Alert LED is on).
- invoking automatic retry of the operation which gave the error.

NOTE: the buttons beep when pressed

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## **PRINTER INSTALLATION**

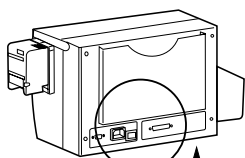
The following will guide you through the installation of your P75 printer.

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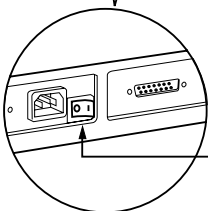


**CAUTION :** Limit AC power supplied to the P75 Printer to 110 - 230 V AC, 60 - 50 Hz for an associated 800 mA - 400 mA. Limit excess current draw to 16 amps or less, using an associated circuit breaker or other such device. Never operate the printer in a location where operator, computer, or printer can get wet. Personal injury could result. The printer must be connected to an earthed electrical power supply and properly protected against electrical surges and grounding faults.

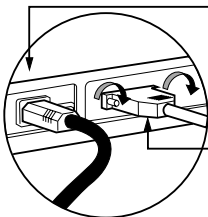
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1. Place the printer in a location that allows easy access to all sides. The printer should never be operated while resting on its side or upside down.



2. Place the printer's power switch in the OFF (0) position.



3. Insert the power cable to the printer power socket and attach to grounded electrical socket of the proper voltage and type.

4. Attach interface cable to printer and computer and then secure.

5. Switch power on.



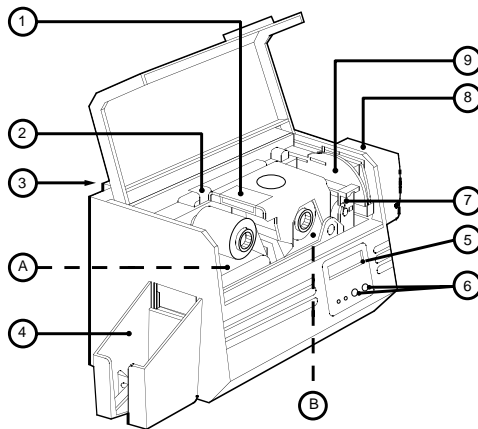
**CAUTION:** Intermittent or unpredictable operation may occur from unsecured connectors. If damaged, the power cable must be replaced by an exact equivalent.

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## 2 OPERATION

### ***P75 PRINTER FEATURES***

The following shows the features found on your P75 Printer:



PLEASE NOTE : Any blue items inside the printer can be operated by the user.

#### STANDARD FEATURES

1. Print Head
2. Print Head Unlock lever
3. Card Output Hopper

4. LCD Display
5. Panel Button LED's
6. Card Cleaning Cartridge
7. Card Cartridge

#### OPTIONAL FEATURES

- A. Magnetic Encoder Station
- B. Smart Card Contact Station

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## **LOADING RIBBONS**

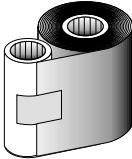
The P75 Printer requires approved ribbons (See Appendix C). The Resin Thermal Transfer and Dye Sublimation ribbons are specifically designed for your P75 Printer. For optimum performance and printer life (Print Head), always use approved ribbons.

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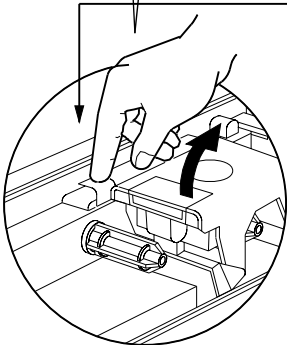
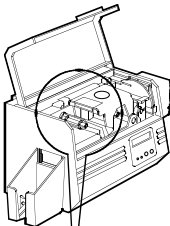


DO NOT TOUCH the print head or the electronic components on the print head carriage. Discharges of electrostatic energy that accumulates on the surface of the human body or other surfaces can damage the print head and other electronic components used in this device.

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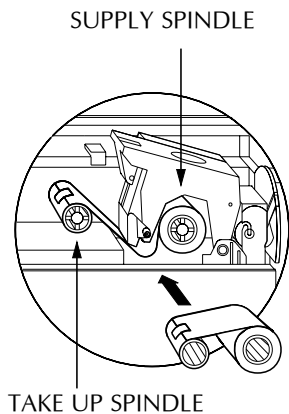


← 1. Remove ribbon from packaging.



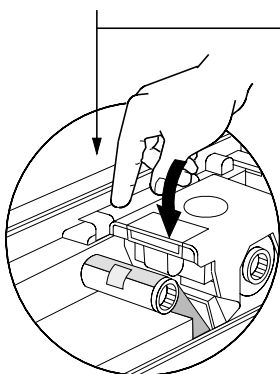
2. With printer power on and **READY** status, open cover and press down on the Print Head Unlock Lever to open the print head carriage. The print head carriage will pop open.

*Continued on next page .....*



- ← **3.** Load ribbon onto the supply spindle (under print head carriage) and empty core (with tape attached) onto the take-up spindle. Make sure the ribbon comes off the top of the supply spindle and feeds to the top of the take-up spindle.

**'CLICK'**



- 4.** Push down on the Print Head Lock Lever until an audible 'click' signals the locked-down position.

- 5.** Close Cover.

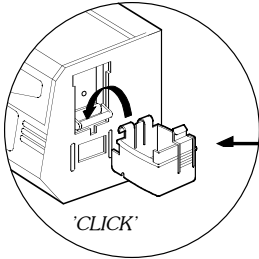


Please note that the ribbon automatically synchronises whenever the print head lock down occurs.

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## **LOADING CARDS**

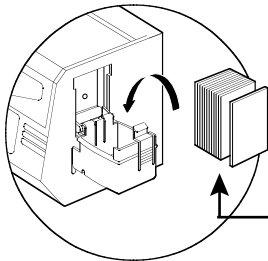
To help you load, print, and collect cards, the P75 has the following items:



### **A - CARD CARTRIDGE**

*For loading cards*

1. Install Card Cartridge by hooking onto printer as shown and clicking down.

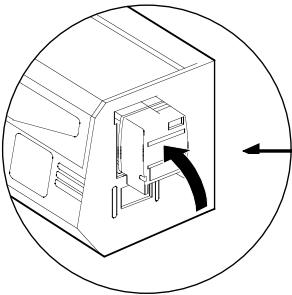


2. Install cards into Cartridge.\*



DO NOT bend cards or touch print surfaces as this can reduce print quality. The surface of the cards must remain clean and dust free. Always store cards in an enclosed container. Ideally, use cards as soon as possible. If cards stick together, carefully shuffle them.

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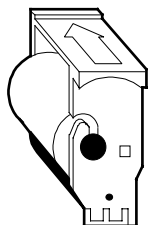


3. Close Cartridge.

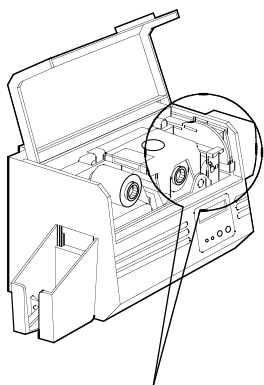
\* See Chapter 6, *Technical Specifications*, for card requirements and capacities.

### ***B - INSTALL CLEANING CARTRIDGE***

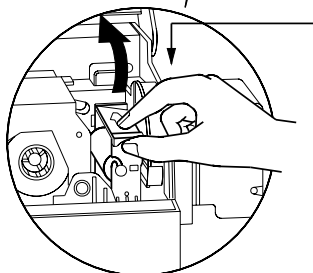
*This item is used to clean the cards entering the printer.*



- ← ***1. Remove Card Cleaning Cartridge from packaging.***



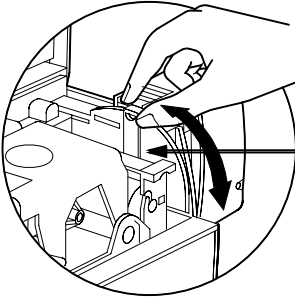
- 2. Open Printer cover and locate Cleaning Cartridge place.  
Remove the yellow adhesive.***



- 3. Make sure the arrow on top of the assembly is facing toward the rear of the printer.  
Hook assembly into slot on printer and rotate down.  
Ensure the assembly locks in place.***

### **C - CARD THICKNESS CONTROL LEVER**

*This item is operated by the user to prevent more than one card feeding into the printer at the same time and causing a jam.*



*Open Cover, and adjust lever to correct position. Repeat for different card thickness. (Factory setting is for 30mil (0.762 mm) card thickness. See diagram below :*



#### **Card thickness:**

A - 60mil (1.524mm) to 50mil (1.27mm)

B - 40mil (1.016mm)

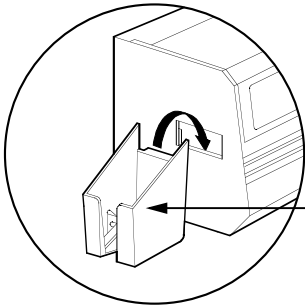
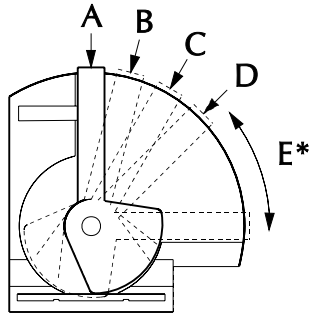
C - 30mil (0.762mm)

D - 20mil (0.508mm)

E\* - Less than 20mil (0.508mm)

\* Start at lowest position and move lever up to match card thickness.

For other card thickness, start lever at lowest position and move up until cards feed.



### **D - CARD OUTPUT HOPPER**

*For collecting printed cards.*

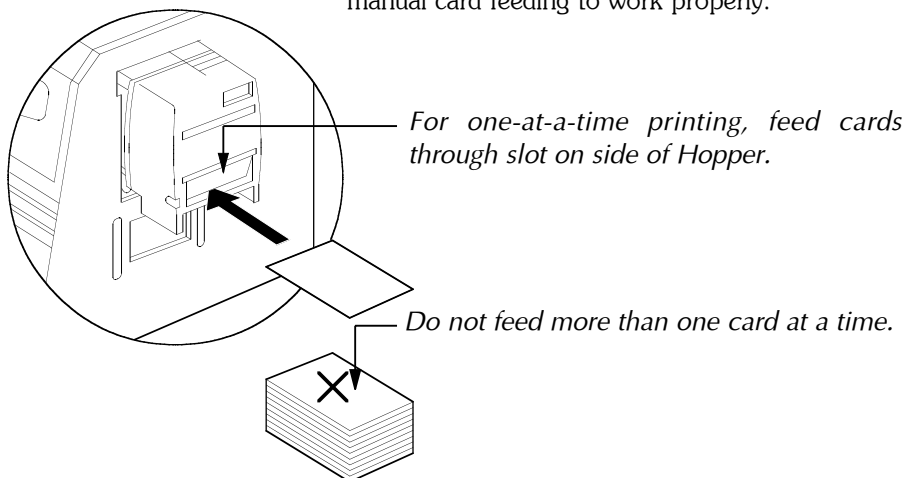
*Install Card Output Hopper onto printer by hooking over bottom edge of card exit aperture.*



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### **FEEDING ONE CARD AT A TIME**

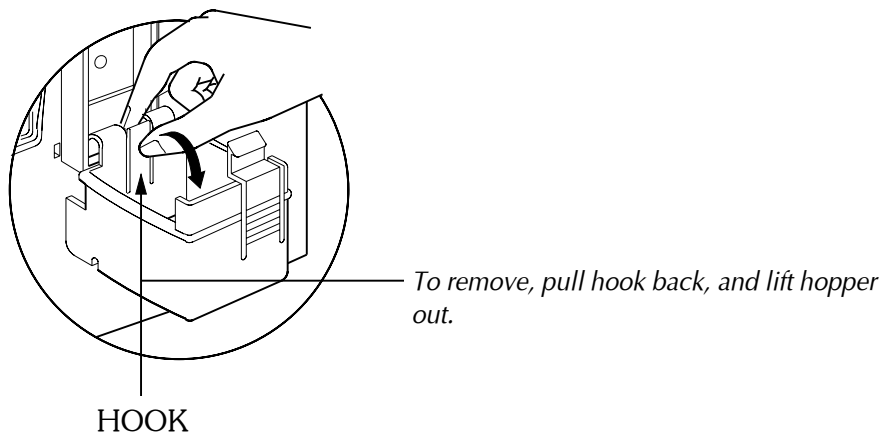
A Manual Feed Slot is available on the side of the Card Input Hopper for feeding single cards. Cleaning Cards are fed manually through this slot. The Card Cartridge must be empty for manual card feeding to work properly.



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### **REMOVING CARD CARTRIDGE**

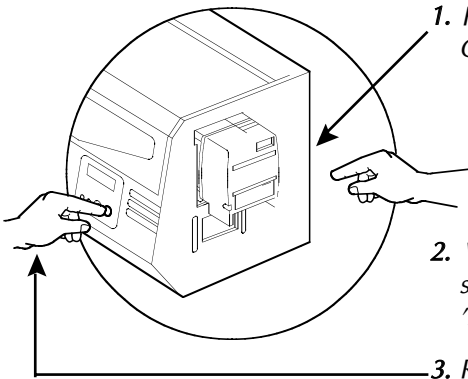
Remove the Card Cartridge prior to packaging the printer for shipment.



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## **PRINTING A TEST CARD**

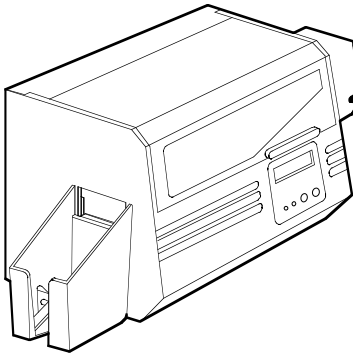
With ribbon and cards loaded, your P75 printer is ready to print. To check the operation of the printer you should print a test card.



1. Place the printer's power switch in the OFF (0) position.

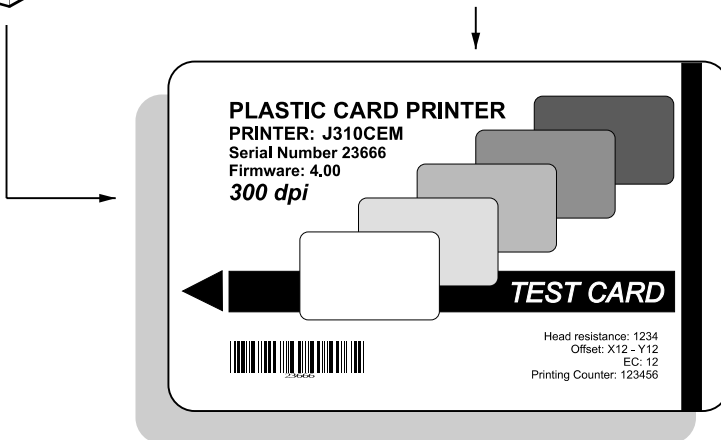
2. While pressing the right panel button, switch printer on. LCD screen will show 'SELF TEST'

3. Release button once 'SELF TEST' is displayed on LCD screen.



4. A test card will print after a few seconds. LCD display will show printing status.

This is an example of the test card.



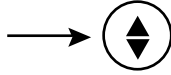
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## PRINTER MENU INFORMATION

The printer is equipped with a LCD Display which gives access to different menus.

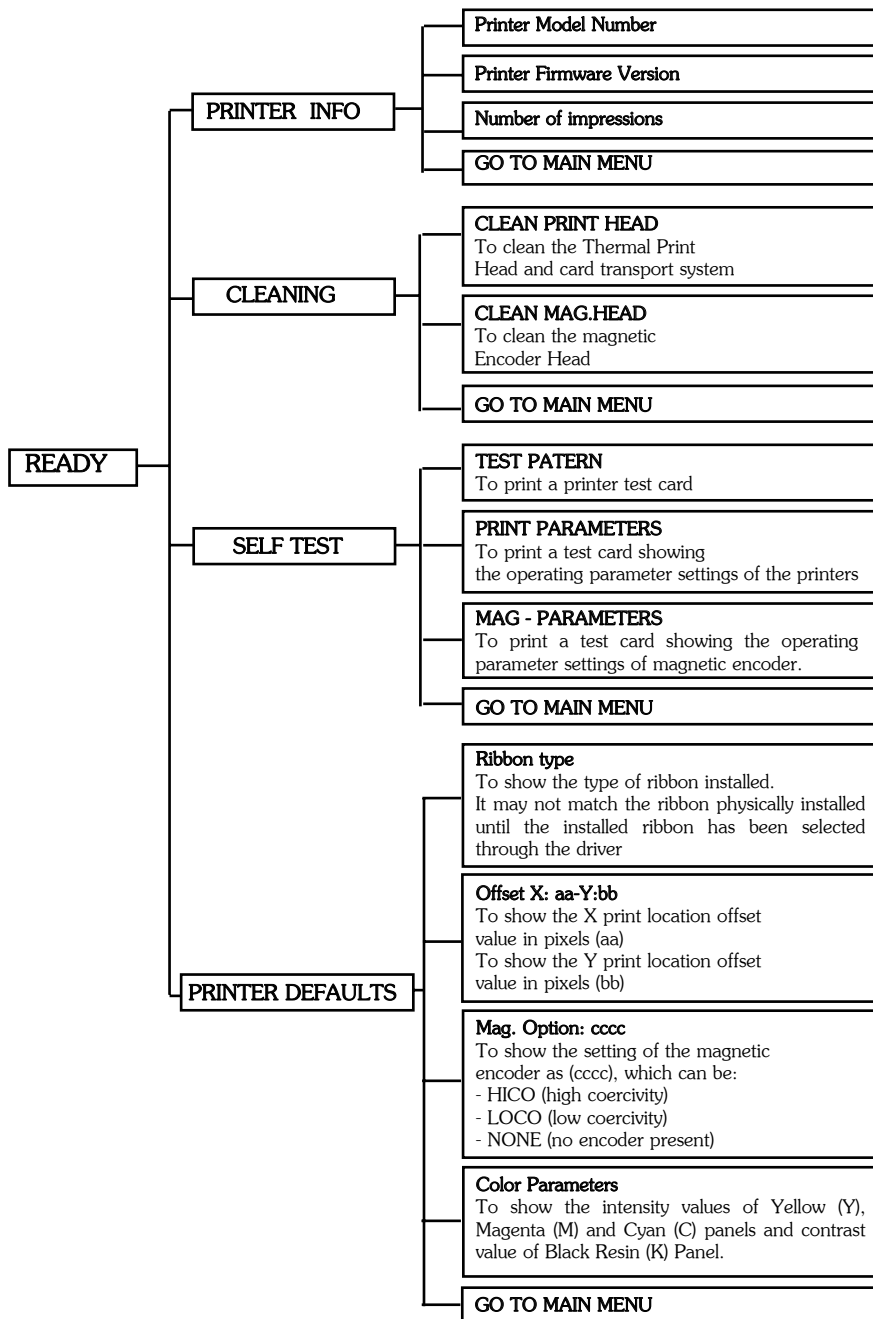
Menu key moves from **READY** Status into the Main Menu by pressing the **Menu** Button :

**Menu Button**  
[NEXT]



**Clear Button**  
[SELECT]

The top line display shows menu information. The second line of display clarifies the function of the two [NEXT] and [SELECT] press buttons relative to the current menu item.



## *STARTING TO PRINT CARDS*

Printing with the P75 Printer requires the Windows printer driver, the Windows ID Card Maker application software package or printer command level programming through the printer interface.

The P75 Card Printer can be used with any Windows 95/98 and Windows NT 4.0 software application program, using the drivers provided with the printer.

This section contains information on the printing of a sample card in color (using the 5-Panel color ribbon YMCKO) and the Windows printer driver.



**BEFORE** installing updated printer driver versions, always delete the existing printer driver version from your computer.

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## TO INSTALL THE P75 PRINTER DRIVER IN WINDOWS 95/98, USE THE FOLLOWING STEPS:

**IMPORTANT NOTE** - ENSURE THAT YOUR PC PRINTER PORT IS SET TO STANDARD MODE AND ALSO ENSURE THAT YOU HAVE DELETED ANY PREVIOUS VERSIONS OF THIS PRINTER DRIVER. IF YOU HAVE ANY DOUBTS PLEASE CONTACT YOUR IT DEPARTMENT.

This installation uses floppy drive 'A' as the installation drive with the printer used as stand alone.

1. Start your computer and then Windows.
2. Insert your 'POLAROID Software' diskette into the drive 'A'.
3. Under Windows click the **Start** button, select **Settings**, then **Printers**.
4. Double click on the **Add Printer icon** and also Next.
5. Ensure **Local Printer** is selected and click on Next.
6. Click on **Have Disk** and then type in '**A:\win95**' and click OK.
7. P75 CARD PRINTER should be displayed after which click on Next.
8. Choose **LPT1 : ECP Printer Port**, click on **Next**, select **Yes** to set as **Default Printer** and click on **Finish** to install.

The Printer Wizard will copy the necessary files to the PC for you and the P75 printer driver installation will be completed.

## TO INSTALL THE P75 PRINTER DRIVER IN WINDOWS NT4.0:

Ensure that you have administrative privileges to perform this installation or contact your IT department.

Set printer as **Not Shared** for stand alone use.

Use the steps provided for Windows 95/98 installation with the exception of **step 6**. where you must type in '**A:\nt40**' instead and click OK.

Once the printer driver has been successfully installed, you will need to configure it for your printer. This driver provides control of several printer features when printing from Windows applications. These features are accessed through the P75 Plastic Card Printer **Properties**. To access these properties select the **P75 Card Printer** icon in **Printers**. Then click **File** Menu and select **Properties**.

The P75 Printer screen appears. Change the options as follows:

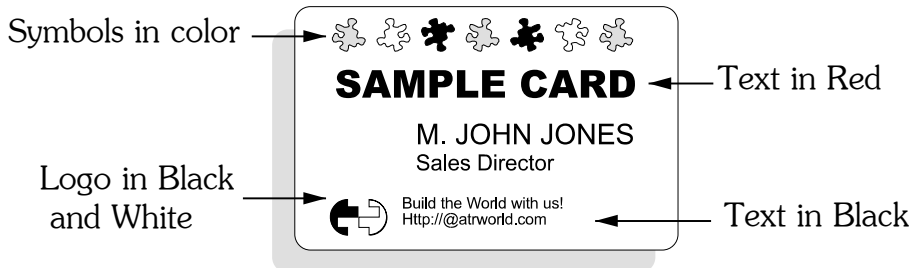
1. On the **Printer Tab** configure the magnetic encoder feature. If your printer is equipped with a Magnetic Encoder option, select **With Magnetic Encoder** option.
2. On the **Card Tab** select card orientation:  
Landscape or Portrait - Select '**Landscape**'.
3. On the **Ribbon Tab**, select the Ribbon Type. Select **YMCKO** for the standard 5-panel ribbon.
4. In the same tab, go to **Black Panel** area and select **Text Only**. This option allows the text printing using the Black Resin Panel from the Color Ribbon.
5. Close the POLAROID 75 Printer Properties screen.

Now that you have loaded media and set up the printer driver, the P75 Printer is ready to print.

EXAMPLE: FOLLOW THESE STEPS TO PRINT YOUR FIRST CARD:

1. Go to the microsoft Word Software.
2. If the printer was not selected as the default printer, go to the **file** menu and select **Print** and choose **Polaroid 75 Card Printer** in the printer names list. Then **Close** the print dialog box.
3. Come back to **file** menu and choose **Page Setup**.
4. Select **paper Size tab** and in **Paper Size** choose **Card**. Then select the orientation: "landscape".
5. Go to Margins Tab, put the top, Bottom, left- and right margins with 0 values.
6. Press OK to close Page Setup Window.
7. The card appears on the screen.

8. Design a card with both black and colored text and colored pictures,i.e.:



9. Once you are ready to print, go to **File** and point **Print**
10. The printer will feed in a card and start printing ( the data download time will vary depending on the complexity of the card design and the processing speed of your computer).
11. Once the printing job is achieved the card is ejected from the printer.



## 4 *CLEANING*



### **PROTECT YOUR FACTORY WARRANTY !**

The recommended maintenance procedures must be performed to maintain your factory warranty.

Other than the recommended cleaning procedures described in this manual, allow only Polaroid authorised technicians to service the P75 Printer.

**NEVER** loosen, tighten, adjust, or bend, etc. a part or cable inside the printer.

**NEVER** use a high pressure air compressor to remove particles in the printer.

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## CLEANING SYSTEM

Your P75 Printer includes a simple cleaning system using the Pre-saturated Cleaning Cards provided. The regular use of these cards will clean and maintain important parts of your printer: including the Print Head, and Transport Rollers.

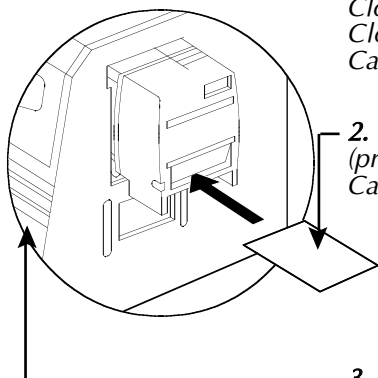
### CLEAN PRINTER

#### WHEN TO CLEAN

*When LCD screen reports message.*

#### HOW TO CLEAN

1. Leave power on.  
Open Cover and release Print Head Bracket to remove ribbon.  
Close Print Head.  
Close Cover. Remove cards from Card Cartridge.



2. Insert one Pre-saturated Cleaning Card (provided) through slot on the side of the Card Cartridge.

3. Press the Clear Panel Button (right) for a few seconds. The card will feed into printer and carry out the cleaning process. Repeat the process with a new Cleaning Card if necessary.

**Note:** For cleaning prior to the WHEN TO CLEAN signal, press the Right Panel Button for 3 seconds to start the cleaning process (Repeat first steps 1 and 2 above).



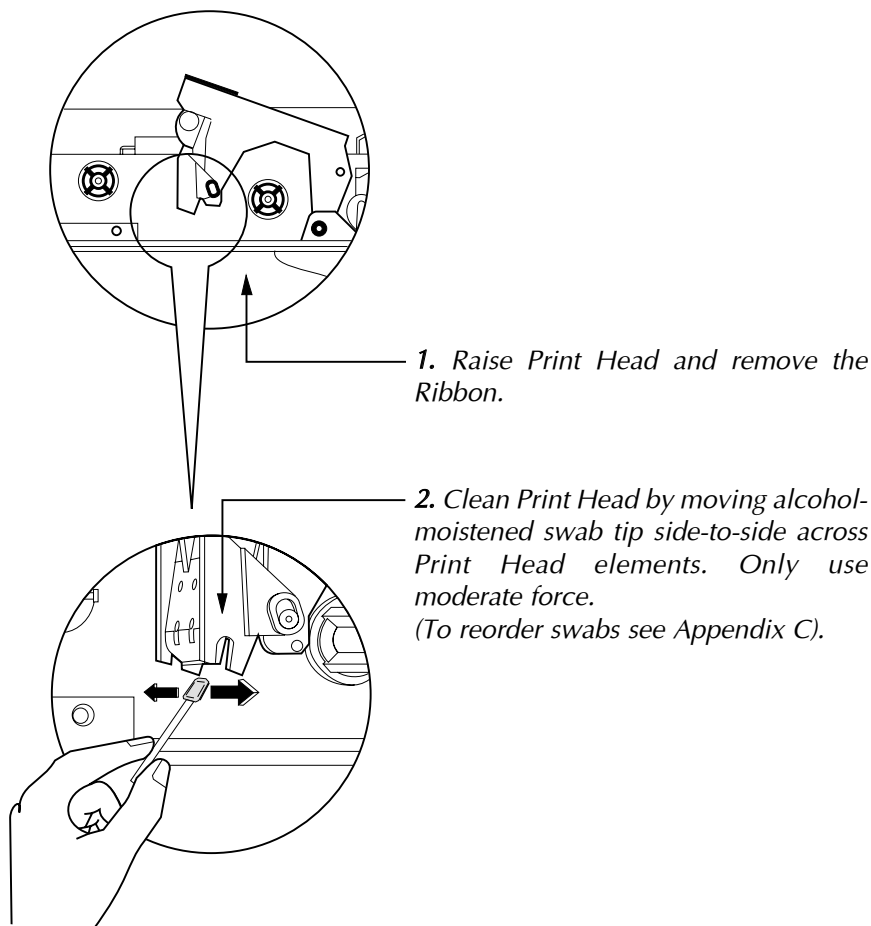
Although the CLEAN PRINTER message is displayed until the cleaning process has been performed, the printer will continue to operate.

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## ***CLEANING THE PRINT HEAD***

A cleaning using the Cleaning Cards usually suffices. However, a separate Print Head cleaning using swabs can remove more stubborn deposits when print anomalies persist. To avoid deposits, only use foam-tipped swabs.



Never use a sharp object to scrape deposits from the print head. Permanent damage will result.

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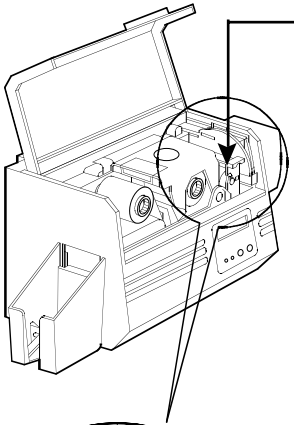
## **CARD CLEANING CARTRIDGE**

Your P75 Printer also has a Card Cleaning Cartridge. This item cleans the cards entering the printer. To ensure print quality, the cleaning roller requires periodic replacements.

**CLEAN PRINTER**

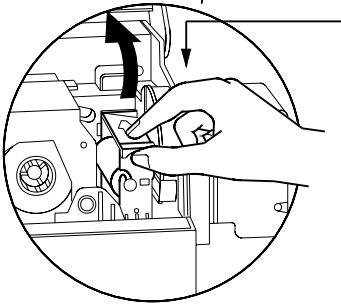
### **WHEN TO MAINTAIN**

*When LCD screen reports message.*



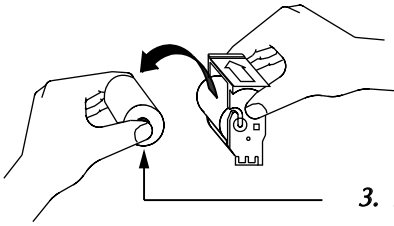
### **HOW TO MAINTAIN**

**1.** *Open Cover and locate Cleaning Cartridge.*

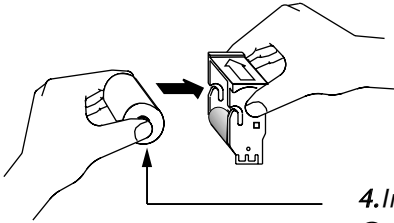


**2.** *Gently remove Cleaning Cartridge by rotating up and away from printer.*

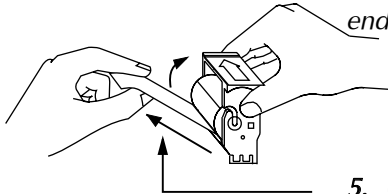
*Continued on next page ....*



**3.** Remove Cleaning Roller from Cartridge and discard.

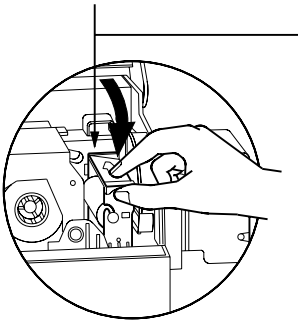


**4.** Install new Cleaning Roller into Cartridge\*. To avoid contamination, always hold the Cleaning Roller assembly by the ends.



**5.** Carefully peel off wrapper from new Cleaning Roller while in Cartridge.

SLOT



**6.** To replace Cartridge into printer: Make sure the arrow on top of the assembly is facing toward the rear of the printer. Hook assembly into slot on printer and rotate down. Ensure the assembly locks in place.

**DO NOT** touch the roller surface that contacts the cards.

**7.** Close Cover

\* See Appendix C for replacement Cleaning Rollers.



Although the CLEAN PRINTER message is displayed until maintenance has been performed, the printer will continue to operate.

## 5 *TROUBLESHOOTING*

This section offers solutions to potential problems you may experience with your P75 printer. The table below lists the screen messages that will be displayed on the printer's LCD, both during normal operation and to alert operator of any error conditions. There is also some additional information dealing with quality issues concerning printing onto cards.

SCREEN MESSAGE	MEANING	ACTION
<b>INITIALISING</b>	The printer is performing an internal test before use	Wait for the ready message
<b>READY</b>	Ready for use	
<b>PRINTING</b>	Card printing in progress	Please wait
<b>WAIT TEMPERATURE</b>	The printer is warming up	Wait for READY message
<b>ON LINE</b>	Waiting for host data	Send card data
<b>SELF TEST</b>	Self test card printing	Wait for test card
<b>DOWNLOADING DATA</b>	The card data is being transmitted	Wait for card printing to start
<b>PRINTING YELLOW</b>	The yellow panel is printing	

SCREEN MESSAGE	MEANING	ACTION
<b>PRINTING MAGENTA</b>	The magenta panel is printing	
<b>PRINTING CYAN</b>	The cyan panel is printing	
<b>PRINTING BLACK</b>	The black panel is printing	
<b>PRINTING VARNISH</b>	The overlay is printing	
<b>PRINT HOLOGRAM</b>	A hologram overlay is printing	
<b>MOVING CARD</b>	The card is being transported	
<b>CLEAN PRINTER</b>	The printer is prompting operator maintenance	Carry out the cleaning procedure as detailed in section 4 of this manual
<b>CLEANING</b>	The printer is performing an internal cleaning routine	
<b>REMOVE RIBBON</b>	The ribbon has not been removed whilst the cleaning operation is in progress	Remove ribbon
<b>OUT OF RIBBON</b>	The printer ribbon has run out	Replace printer ribbon
<b>MECHANICAL ERROR</b>	The printer has an error moving the card internally	Remove the jammed card. Ensure that the card is not out of specification
<b>OUT OF CARD</b>	The card feeder is empty	Add more cards or adjust the card feeder to accept the cards
<b>HEAD OPEN</b>	The print head is not locked into position	Lock the print head in its lower position
<b>COMMAND ERROR</b>	The data being sent from the host is not recognised	Check that the data is suitable for printing. Try re-printing a card from known 'good' data
<b>PARAMETERS ERROR</b>	The features of the card are not recognised	Check the Windows driver options and printer type

SCREEN MESSAGE	MEANING	ACTION
<b>ENCODING ERROR</b>	Data cannot be written or read from the card's magnetic stripe	Check that the cards are loaded with the magnetic stripe in the correct orientation. Check whether high or low coercivity cards have been specified. Check that the data conforms to ISO specifications. See Appendix A of this manual for further information.
<b>MAGNETIC ERROR</b>	The printer cannot detect a magnetic stripe on the card.	Check the card orientation
<b>BLANK TRACK</b>		
<b>FLASH ERROR</b>		Contact your dealer for technical support.
<b>NO ACCESS</b>		

**Ribbon Errors:** Check that the print ribbon has not 'run out'. Lock and then unlock the print head assembly; this resynchronises the ribbon automatically. When using a color ribbon, it should advance automatically so that the leading edge of the Yellow panel is beneath the print head. Ensure that the correct ribbon type has been specified in the Windows driver.

**Card Feed & Mechanical Errors:** Ensure that the card thickness adjustment has been set-up correctly to allow one card to feed.

**Magnetic Encoding Errors:** Check that the cards are inserted correctly in the printer. Ensure that the cards are low or high coercivity as required, and are set-up correctly in the printer driver.

**Cleaning Alert:** The printer has counted the number of cards printed and has automatically flagged that a cleaning routine needs to be carried out. (See Chapter 4).



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## **QUALITY ISSUES**

**Missing print or white lines:** Ensure that the ribbon is neatly winding onto the take-up core and that no creases are visible on the used ribbon. If there is a fine white line in the same place on the card, this indicates possible print head damage.

**Poor Print Quality:** Print a Self-Test card, and check that the printer is clean and dust free. Check that the correct type of ribbon is being used and is specified correctly in the Windows driver. Ensure that the cards are clean and are not covered by loose plastic particles. Do not try reprinting previously printed cards as the ink will not bond correctly to the card

**Missing areas of print:** Ensure that the cards are flat and free from any surface depressions. The cards and printer must be clean and not contaminated by grease, dust or other particles.

## ***TECHNICAL SPECIFICATIONS***

### ***General***

- High speed printing, over 140 cards/hour edge to edge in full color (YMCKO) throughput
- Small footprint
- Windows Drivers for 95/98 and NT 4.0 (option)
- One year printer warranty
- One year print head warranty

### ***Colour Printing***

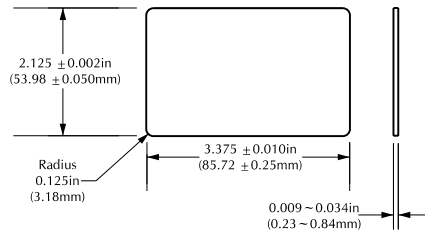
- Color dye sublimation or monochrome thermal transfer printing
- 25 seconds per card edge to edge in full color (YMCKO)
- 300 dpi (11.8 dots/mm) print resolution
- Edge to edge printing standard

- Fonts**
- Resident: Arial Normal 100, Arial Bold 100
  - True Type fonts available via Windows Driver

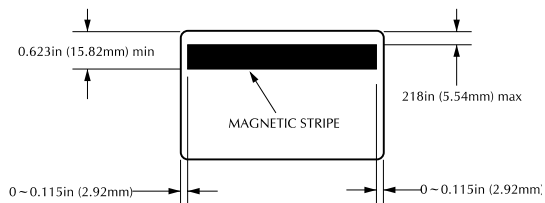
- Cards\***
- Types PVC, Composite
  - Card width/length: ISO CR-80 - ISO 7810, 2.125" (54mm) by 3.375" (86mm)
  - Option: Magnetic Stripe - ISO 7811
  - Option: Smart Card - ISO 7816-2
  - Card thickness: 0.25mm to 1.524mm
  - Card Cartridge capacity: Up to 210 cards 0.25mm), up to 75 cards (0.15mm)

#### CARD DIMENSIONS

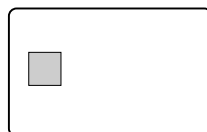
##### ISO STANDARD DIMENSIONS FOR PLAIN CARD



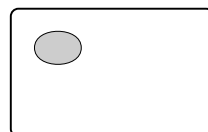
##### ISO STANDARD DIMENSIONS FOR MAGNETIC STRIPE CARD



##### CHIP POSITION FOR SMART CARD



##### AFNOR STANDARD



\* Use Polaroid approved media only.

### ***Ribbons\****

- Monochrome: 1500 cards/roll
- Monochrome colors: black, red, blue, green, silver, gold, white, Scratch-off gray
- K-resin + O: 800 cards/roll
- K-dye + O: 800 cards/roll
- YMCKO: 200 cards/roll
- YMCKO: 350 cards/roll

### ***Overlay Varnish***

- Thermal transfer
- 4 microns thick
- Clear and holographic options:
  - Clear
  - Genuine/Secure Hologram
  - Custom Hologram

### ***Interfaces***

- Parallel Standard (cable included)
- RS-232C Serial (option)

### ***Mechanical***

- Width: 329 mm†
- Depth: 219 mm†
- Height: 232 mm†
- Weight: 6.3 kg

### ***Electrical***

- 110 ~ 230 Volts AC, 60 ~ 50 Hz
- FCC Class A, CE, UL, and CUL approved

### ***Environmental***

- Operating Temperature: 60 to 86°F (15 to 30°C)
- Operating Humidity: 20 to 65% non condensing
- Storage Temperature: -23 to 158°F (-5 to 70°C)
- Storage Humidity: 20 to 70% non condensing
- Ventilation: Free air

\* Thermal transfer (Resin) ribbons offer more durability than dye sublimation, with greater resistance to scratches and UV-induced fading.

Dye Sublimation printing requires dye sublimation ribbons, with either black or cyan, magenta, and yellow (plus black resin) panels.

† Measured without card feeder and card hopper.

### *Options*

- RS-232C serial port
- Smart Card Contact Station (0.76mm cards only)
- Magnetic Encoder (0.76mm cards only)
- Extended Warranty program
- Hot Swap Warranty program
- Cleaning supplies
- Service Manual



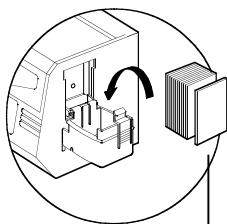
Use only Polaroid-approved card and ribbon media. Using non-approved card or ribbon media can void your warranty.

Refer to the Accessories section for more information about Card and Ribbon Media available from Polaroid.

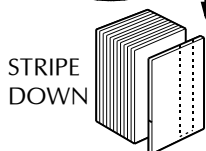
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# APPENDIX A - MAGNETIC CARD STRIPE ENCODER

Operation and maintenance requirements for the P75 Printer with the optional magnetic card stripe encoder. (See Chapter 2 for location). The magnetic encoder can be set for either high or low coercivity.



*The magnetic encoder is a factory installed item with the read/write head positioned below the card path, available with HICO encoding or LOCO encoding.*



*When loading cards into the Card Cartridge, please ensure that the magnetic stripe is facing towards the printer and closest to the rear.*



*Also available are Printer models with the Magnetic Read/Write head positioned above the card path, with HICO encoding or LOCO encoding.*

*When loading cards, please ensure that the magnetic stripe is facing away from the printer and closest to the rear.*

Approved HICO & LOCO PVC cards are available. (See Appendix C).



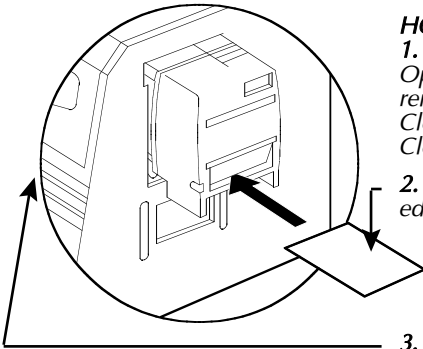
**ONLY USE** cards that comply with ISO 7810 & 7811 standards for magnetic stripe cards. The magnetic stripe must be flush to the surface of the card to work properly. Never use taped-on magnetic stripes.

The read/write head requires periodic cleaning to maintain error-free encoding.

## CLEAN PRINTER

### WHEN TO CLEAN

When LCD screen reports message.



### HOW TO CLEAN

1. Leave power on.  
Open Cover and release Print Head Bracket to remove ribbon.  
Close Print Head.  
Close Cover. Remove cards from Card Cartridge.
2. Insert one Pre-saturated Cleaning Card (provided) through slot on the side of the Card Cartridge.
3. Press the Clear Panel Button (right ) for a few seconds. The card will feed into printer and carry out the cleaning process. Repeat the process with a new Cleaning Card if necessary.

**Note:** For cleaning prior to the WHEN TO CLEAN signal, press the Right Panel Button for 3 seconds to start the cleaning process.  
(repeat first steps 1 and 2 above)



Although the CLEAN PRINTER message is displayed until maintenance has been performed, the printer will continue to operate.

## ISO STANDARD ENCODING

Track #	Field Separator	Track density	Valid Characters	# of characters
1	^	210BPI*	Alphanumeric (ASCII 20~95†)	79‡
2	=	75BPI*	Numeric (ASCII 48~62)	40‡
3	=	210BPI*	Numeric (ASCII 48~62)	107‡

\* Bit per inch

† Except the '?' character

‡ Including Start, Stop and LRC characters. Also note that these 3 characters are automatically managed by the magnetic encoder according to the ISO Standard Norms.

NOTE: Refer to the Card Printer Programmer's Manual for complete programming information.

## ***APPENDIX B - SMART CARD CONTACT STATION***

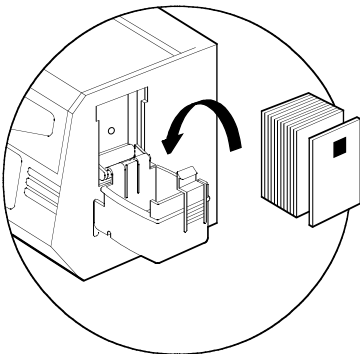
This section contains information on the additional operations of the P75 Printers with Smart Card Contact Stations. (See Chapter 2 for location.)

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### ***INTRODUCTION***

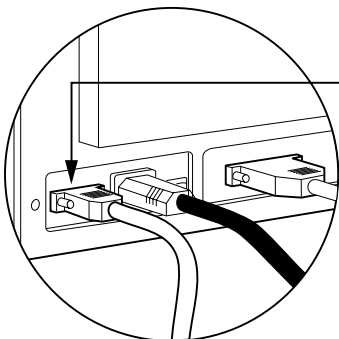
Smart Cards can have a built-in microcomputer and a battery. Card Memory can store fingerprints, voice recognition patterns, medical records and other such data. The P75 may be equipped with an optional contact station for programming Smart Cards (ISO 7816). This printer model responds to commands that position the cards at the contact station, where the printer connects to the contacts on the Smart Cards. All other printer operations remain the same as the standard P75 model.





### **MEDIA LOADING ORIENTATION**

*Position the cards with the Smart Card Chip at the top of the card and facing away from the printer.*



### **SMART CARD CONTACT STATION INTERFACE**

*When a command to the parallel printer interface sends a card to the Smart Card Contact Station, the printer connects the Smart Card Contact Station to the female DB-9 connector on the rear of the printer.*

*An attached external Smart Card Programmer can be used to program Smart Card chips.*



**DO NOT** position printing over the Smart Card Chip.

DB - 9 PINS	SMART CARD CONTACT POINTS	DB - 9 PINS	SMART CARD CONTACT POINTS
1	C1 (Vcc)	6	C6 (Vpp)
2	C2 (Reset)	7	C7 (I/O)
3	C3 (Clock)	8	C8 (RFU)
4	C4 (RFU)	9	(GND when chip is at station)
5	C5 (GND)		

Refer to the Card Printer Programmer's Manual for complete programming information.

# **APPENDIX C - ACCESSORIES & SUPPLIES**

Please contact your Polaroid authorised dealer to place an order for accessories and supplies

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## ***RIBBONS***

The following ribbons may be used in the P75 Printer:

### **Monochrome Resin Ribbon Description (sold by the roll)**

- ☐ Black (1500 images)
- ☐ Red (1000 images)
- ☐ Green (1000 images)
- ☐ Blue (1000 images)
- ☐ White (1500 images)
- ☐ Gold (1500 images)
- ☐ Silver (1500 images)
- ☐ Scratch-off Grey (1000 images)

### **Color Ribbon Description (sold by the roll)**

- ☐ 5-panel (YMCKO) - (350 images)
- ☐ 5-panel (YMCKO) - (200 images)
- ☐ 2-panel (K dye + O) - (500 images)
- ☐ 2-panel (K resin + O) - (600 images)
- ☐ 2-panel (K dye + O) - (800 images)
- ☐ 2-panel (K resin + O) - (800 images)
- 2-panel (K resin + O) - (800 cards)

Note :

M = Magenta, C = Cyan

B = Black , O = Overlay

Monochrome resin ribbons are suitable for printing text, graphics and bar codes, but not images.

K dye + O ribbons are recommended for printing monochrome images.

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**CARDS** The following plain white plastic cards are available for use in the P75 printers:

**Card Description**

- ☐ Cards with no magnetic stripe
- ☐ Cards with low coercivity magnetic stripe
- ☐ Cards with high coercivity magnetic stripe
- ☐ Self-adhesive cards to fix onto proximity cards

*Many other card types are also available; ask your dealer for more information.*

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## ***ACCESSORIES***

Accessories available for P75 Printers are listed below:

### **Accessories Description**

- ☐ Printer cable, parallel, DB25 male to female
- ☐ Additional Card Cartridge
- ☐ P75 User's Manual
- ☐ Premier Cleaning Kit: cards (50) and swabs (25)
- ☐ Replacement Print Head Kit
- ☐ Adhesive Cleaning Roller Kit (5)
- ☐ Complete Cleaning Cartridge