b. Locate the Print Head protection pad and the Card Cleaning Cartridge location tape (see below). Remove the tape.



c. Release the Print Head Carriage by pushing the Print Head Carriage Latch to the left, and raise the Print Head Carriage. It will remain open at about a 45° angle.



Installation and Setup

Installing the Print Driver Software and Setting Driver Options

d. Remove the print head protection pad. Keep the pad, as well as the other packing material and the shipping carton, in case the printer is shipped or moved. If the original material is lost, a replacement Shipping Kit can be ordered from your reseller.



Installing the Print Driver Software and Setting Driver Options

Printing with the P430*i* Printer requires the Windows Printer Driver and your card design/issuing software or printer command level programming through the printer interface.

The P430*i* Card Printer can be used with any Windows 2000 or Windows XP computer, using the drivers provided on CD 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).



Note • If updating the printer driver from a previous version, before installing the updated printer driver version, always delete the existing version from your computer.

Installing the P430*i* Print Driver

To install the P430*i* Printer Driver automatically on all Operating Systems, use the Zebra Install Wizard.



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

The Install Wizard will walk you through the appropriate installation steps. The Wizard will:

- Automatically launch when the driver CD is inserted.
- From the main menu of your documentation CD, select your desired language and then select "DRIVERS" from the subsequent menu. The Install Wizard will walk you through the appropriate steps.

• Delete previous versions of the driver and clean up any necessary Registry entries. You must select "Remove" from the install options to remove any previous driver versions.

Loading a Ribbon

i Series Printers require the use of *i* Series ribbons for full color printing. The Resin Thermal Transfer and Dye Sublimination ribbons for P430*i* are specifically designed for your P430*i* Printer.

- **1.** Place the printer power switch in the OFF (0) position.
- **2.** If the printer's Main Lid is closed:
 - **a.** Open the printer's Main Lid; lift it by the lip at the bottom front as shown in the figure below left.





Electrostatic Discharge Caution • DO NOT TOUCH the Print Head or the electronic components on the Print Head Carriage. Discharges of electro-static energy that accumulate on the human body or other surfaces can damage the Print Head or other electronic components used in the printer.

Note • Avoid any direct contact with the print head to prevent transfer of oils or contamination. Outside of normal operation, only the Zebra-approved cleaning materials should come in contact with the print head.

b. Raise the Print Head Carriage by pressing the release latch to the left (toward the output hopper) and lifting as shown below to about a 45° angle. The Print Head Carriage will stay in that position, as shown at the right below.



3. Locate the Ribbon Supply Spindle and the Ribbon Take-up Spindle (see above). Load ribbon onto the supply spindle (under the print head carriage) **flange side in**, and load the 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.



Caution • Do not touch the print head if the printer has been in service within the last 10 minutes. It could be very hot and cause a burn.

Electrostatic Discharge Caution • A static discharge is possible if you touch any exposed metal parts. Use of an anti-static wrist strap or comparable anti-static protection is required.

4. Gently press the print head carriage down until it is fully lowered, as shown below. Very little force is neccessary to perform this step.



Note • During normal operation (with power connected and turned on), the ribbon would automatically synchronize when the Print Head is restored to its fully-down position. The ribbon would be identified and the corresponding parameters sent to the driver.

Since power is not connected at this point in the Installation and Setup Procedure, nothing will happen when the Print Head Carriage is closed. The ribbon will synchronize when power is turned on.

Installing the Card Cleaning Cartridge

The Card Cleaning Cartridge cleans the cards entering the printer. The Card Cleaning Cartridge consists of a Cartridge Frame and an Adhesive Roller, which are packed together.

1. Remove the Cartridge Frame and the Adhesive Roller from their packaging. Insert the Adhesive Roller into the Cartridge Frame, as shown below. To avoid contamination, always hold the frame and the roller by the ends.



2. Peel the protective wrapper from the Adhesive Roller.



3. If the printer's Main Lid is closed, open it. Locate the area where the Card Cleaning Cartridge will be installed (initially, this area was covered by a warning tape).





4. Locate the slot at the rear of the Card Cleaning Cartridge mounting location; see below.

5. Hold the Card Cleaning Cartridge by the extended "handle" (so the large arrow on the top is pointing away from you). With the cartridge at about a 30° angle (pointing downward), insert the lip of the cartridge into the slot, until the cartridge seats against the back wall. Then press the front of the cartridge down until it seats all the way down and latches with an audible "click". See below.



6. Close the printer's Main Lid.

Setting the Card Thickness Control

The Card Thickness Control is set by the user to adjust the gap as cards enter the printer, to prevent double-feeds (which could cause a jam) or mis-feeds.



Note • Set the Card Thickness Control before loading cards.

1. Open the Card Feeder cover. The cover is hinged; lift it by the lip at the right front corner.



Note • To reduce contamination and ensure better print quality, minimize the time the Card Feeder cover is open.



2. The Card Thickness Control Lever is at the front of the left-side opening of the Card Feeder area.



Detent Position	Card Thickness
Highest	50 mil (1.27 mm) to 60 mil (1.52 mm)
3rd position	30 mil (0.76 mm) to 50 mil (1.27 mm)
2nd position	20 mil (0.51 mm) to 40 mil (1.02 mm)
Lowest	10 mil (0.25 mm) to 20 mil (0.51 mm)

3. There are four detents to set the position of the Card Thickness Control. Slide the Card Thickness Control to the position corresponding to the following:



Note • The overlap in settings above accomodates variations in environmental conditions (especially humidity) and cards from different manufacturers. In general, start at the lowest position and move the lever up until cards feed reliably.



Note • "60 mil" ("1.524 mm") cards may have a significant variation (over 10%) in the actual thickness of the cards; do not use these cards unless each card has been measured to have a thickness less than 66 mil (1.676 mm).

Loading Cards

This section shows how to load plastic cards into the P430*i* Printer. The P430*i* can use cards with a range of thickness from 10 mil (0.25 mm) to 60 mil (1.5 mm).



Note • Do not mix cards of different thicknesses!

The P430*i* Printer can also load and print cards fed individually. Information on this is given in the next chapter.



Note • 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.



Note • For cards with magnetic stripe, refer to Appendix A for loading instructions.

The plastic cards generally come in decks of 100 cards; the Card Feeder can hold a full deck of 100 30-mil cards. Cards sometimes will stick together; this can cause mis-feeding or double-feeding. To avoid this, separate the cards before loading, as described in steps 2 through 4 below.

1. If the Card Feeder cover is closed, open it. The cover is hinged; lift it by the lip at the right front corner.



Note • To reduce contamination and ensure better print quality, minimize the time the Card Feeder cover is open.





Caution • Do not touch print surfaces of the cards; this can reduce print quality

- 2. Remove all wrapping from the card deck.
- **3.** Holding the card deck by the sides, hold it vertically against a flat surface such as a desktop. If the deck is too thick for your hand to hold it comfortably, use about half a deck at a time.



4. Push the stack back and forth to an angle of about 45° from vertical, so as to separate all of the cards.





Note • Static charges and edge burrs from the card die-cutting process can render individual cards stuck together with significant adhesion force. These cards <u>must be</u> physically separated from each other before inserting into the feeder; if not separated, feeding or printing problems may occur.

5. Restore the card stack to its original squared-off condition, and place the cards in the input hopper.



6. Note that there will be a "gap" in the card stack, with several cards lying flat and the cards above angled upward, as shown in the exaggerated drawing below. This is normal and ensures proper feeding.





Note • Do not try to eliminate the gap by pressing down on the card stack in the input hopper; this can cause misfeeds.

Card Output Hopper

The card output hopper is normally extended to receive the printed cards. The printer may be operated with the card output hopper in its closed position; in this case the cards will not be collected in the output hopper.

1. Pull the card output hopper out to place it in its functional position.



Note • The output hopper is a very snug fit to prevent it from moving during shipping or operation; firm force is required to change its position.



- **2.** When not using the printer, slide the card output hopper back into its closed position to protect the printer from dust and protect the output hopper from damage.
- **3.** The output hopper can be completely removed from the printer if necessary by inserting a thin, blunt object (such as a pencil) up through the hole in the bottom of the printer enclosure and pressing (up) to release the hopper while simultaneously pulling the hopper out. To re-install the output hopper, simply slide the output hopper in until it locks in place.

Connecting the Printer to your Computer

The P430i Printer includes a standard USB interface.

As an option, the printer can be ordered with a 10/100base-T Ethernet Adapter (in addition to the USB interface). The Ethernet Adapter can also be ordered as an add-on option and installed in the field by a Zebra factory certified technician.

1. If using the USB interface, use the supplied USB cable to connect between the USB connector on the printer and a USB port on the computer, as shown below. (Note that the figure below shows the optional Ethernet Adapter directly above the USB Connector; this may not be present on your printer.)



2. If your printer includes the optional Ethernet Adapter as well as the standard USB connection, use **either** the supplied USB cable or a standard Ethernet cable to connect the printer to a corresponding port on the computer or network.



Important • Do not use both USB and Ethernet connections at the same time!

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

Connecting Power

The P430*i* Printer includes an internal AC power supply that accepts nominal input voltage in the range from 110 to 230 volts at 50 to 60 Hertz. The power source must be grounded.

Depending on specific model number, your P430*i* Printer will include one or two power cords; use the one that is appropriate for the AC power source connection at your location. If neither has an appropriate connector, AC power cords may be purchased locally; make sure it is a three-wire (grounded) cord.



- 1. Place the Printer's power switch in the OFF (**O**) position.
- **2.** Depending on your local AC voltage, plug the appropriate power cord into the printer's power connector and a grounded AC power source connection.



Caution • If the power cord appears damaged in any way, or if the power cord will not securely plug into the Printer's power connector or the AC power source connection, **STOP!** Use of a damaged or incorrect power cord could cause equipment damage, result in an electrical fire, or possibly cause injury.

3. To turn the Printer on, set the Printer's power switch to the ON (|) position.