

The **EV1-LX Printer** is a high resolution, large character ink jet printer using Lexmark™ Inkjet technology. This efficient, affordable, maintenance free design prints 20% more printable characters from a greater print distance at production line speeds of up to 200 feet per minute. The LX printers deliver bold, highly legible, fully formed characters at 300 and 600 DPI making this system very competitive with contact coders.



*This system comes equipped* with a hand held controller with tactile keypad and a LCD graphics display, printhead module, breakaway mounting bracketry and two character heights in the Arial style font, 1/2" and 7/32".

(Ink cartridge sold separately)

*The hand held controller* is designed for message entry, print one line using 1/2" high characters or two lines using 7/32" high characters, 24 characters per line. The controller is also capable of controlling up to 32 individual printhead modules.

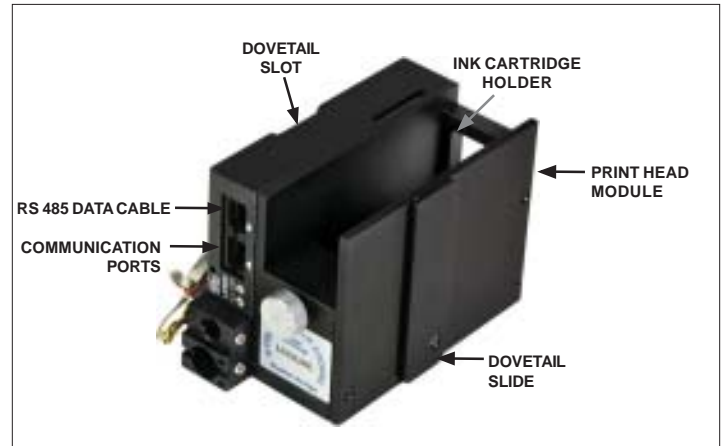
*Other features include,* Programmable line speed, Programmable print direction, Programmable print delay, Inter-character spacing, Inverted printing and Multiple language prompts in English & Spanish. You can customize your printer to fit each individual user requirement.

*Alternate font heights* are available in Arial style, in character heights of 1/8" & 3/32". Font styles, logos, graphic bitmap images and software packages can be supplied on Data Flash Card media and easily loaded into the print head module, however, there can only be two different size fonts resident in the *Evolution 1-LX* printer at one time.

It is also important to know that which ever size font you use, a two line code still takes up 1/2" of vertical space, there is just more space between lines. If your application requires the lines of text to have more or less spacing between them, the print heads can be staggered to achieve this.

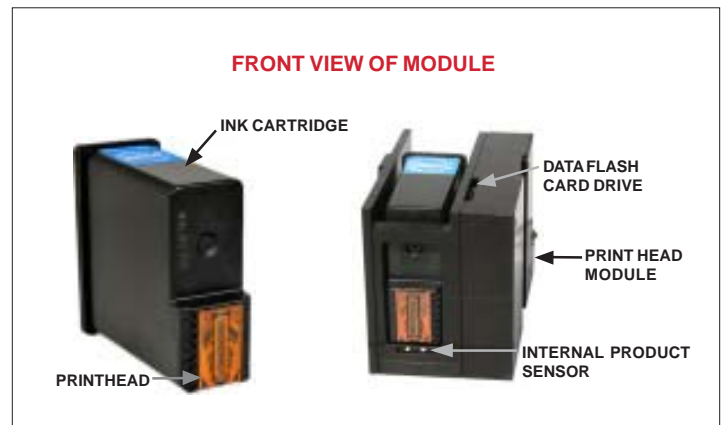
- 7/32" high fonts, 2 lines of text, 1/16" space between lines.
- 1/8" high fonts, 2 lines of text, 1/4" space between lines.
- 3/32" high fonts, 2 lines of text, 5/16" space between lines.

*The Print Head Module* houses the ink cartridge and is designed with a dovetail slot on one side and a dovetail slide on the other so you can easily slide multiple print head modules together. Built into the print head module is a product sensor to detect the presence of a carton or product.



*Each Print Head Module has a discrete address to identify them for message entry.*

*The print head* is an integral part of the ink cartridges, when you replace the ink cartridge you are also replacing the print head. No maintenance down time or costly field service to keep your system running like new.



**Physical Dimensions:** Controller: 4.125" W x 8.750" L x 1.500" D.  
Print Head Module: 2.5" W x 4.00" D x 3.00" H.

**Environmental Specifications:** 50F - 104F (10C - 40C)  
Up to 80% RH non-condensing.

**Power Required:** 110-240 VAC, & 50-60 Hz 0.5A

Authorized **EVOLUTION** Distributor  
**Universal Stenciling & Marking Systems, Inc.**  
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The **Mounting Bracket** will hold up to 4 separate print head modules at once; a small RS 485 data cable is used to connect each module together and a longer cable is used to connect the modules to the printers on the next production line in the manufacturing area. The hand held controller has the ability to control 32 separate print heads.



The **Breakaway Mounting Bracketry** was designed to protect the print head from harm should a carton moving down a conveyor or case taper come through skewed or off center. The adjusting rod holding the print head will turn away or "breakaway" from the line moving the print head out of harms way as soon as the carton comes in contact with it. Once the misaligned carton passes, a detent in the assembly allows you to pivot the rod back into position without any further adjustment.



The **Evolution 1-LX** has a unique printer feature to achieve a 600 DPI without an encoder and extend the life of the ink cartridge. The LX print head contains columns of nozzles which are controllable through the software.

**LX Series print head columns:**

- 1 = column 1 - 300 DPI
- 2 = column 2 - 300 DPI
- 3 = column 3 - 300 DPI
- 4 = column 4 - 300 DPI
- 5 = columns 1 & 2 - BOLD PRINT 600 DPI
- 6 = columns 3 & 4 - BOLD PRINT 600 DPI
- 7 = column 1, 2, 3, & 4 automatically change each print cycle at 300 DPI
- 8 = column 1 & 2, 3 & 4 automatically change each print cycle at 600 DPI

The user now has the ability to choose a sequence of columns to fire ink throughout the run. For example, choose column 5 and column 1 & 2, which are both 300 DPI, will fire over each other to achieve a bold print @ 600 DPI. Pick column 7 or 8 and 1,2,3 & 4 will fire ink consecutively which will extend the life of the ink cartridge.

The **4550 porous ink cartridges** are genuine Lexmark™ ink cartridges. These ink cartridges were designed to deliver a bold print of 300 or 600 DPI at a greater print distance plus a 20% increase in the number of printable characters. The reservoir in the ink cartridge holds 42 cc's of ink.



**4550 porous ink color:** Black, sold in 6 packs.

**4550 POROUS SERIES PRINT SAMPLES**



**PRINT ON DISPLAY BOX**



**PRINT ON CARDBOARD CARTON**

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## Software Packages

A series of **Software Packages** have been developed for Evolution Ink Jet Printers. These packages give the end user the flexibility to add only what they need for a particular application. Each system is capable of having a variety of optional font styles and character heights downloaded into the print head. The Software Packages can operate independently or as a group making Evolution Printers a full featured system.

**If your application requires a size or font style other than the standards, please contact your distributor. We do have the ability to match virtually any font style in 1/2" character heights or smaller.**

## Software Package No. 1

This software package contains **Message Storage, Automatic Message Repeat** and **Password Protection**.

**Message Storage** allows the user to store up to 50 messages in the hand held controller. The stored messages include the text and the operating parameters such as line speed and print registration.

**Automatic Message Repeat** is designed for those applications where a continuously repeating message is required. The distance between message repeats can be programmed through the controller to give varying distances of up to 20 inches.

**Password Protection** gives a supervisor the ability to store a password into the controller to prevent unauthorized changes of the message and the operating parameters of the system.

## Software Package No. 1.5

This software package contains **Extended Message Length** and **Expanded Memory**.

**Extended Message Length** expands the message lengths. 1/2" characters expand from one line of 24 characters to one line of 48 characters. 7/32" characters expand from two lines of 24 characters per line to 48 characters per line.

**Expanded Memory** allows the user to store up to 99 messages, as opposed to 50, which includes both the text and operating parameters stored in the Hand Held Controller.

## Software Package No. 2

This software package contains **Sequential Numbering, Variable Date Formats** and **Variable Time Formats**, including all of the features contained in software package 1 and 1.5.

The **Sequential Numbering** option is a user defined counter which can start at zero or any number you enter up to a maximum of 9 digits. Example: 0000 (start) 9999 (end and resets to 0000)

**Variable Date Formats** can be represented in a numerical (01/01/05), alphabetical (Jan 01, 2005) and Julian date format (05001). The formats can be arranged to print Month/Day/Year, or Day/Month/Year. The ability to print only the month and year, and other combinations, are totally programmable. Delimiters (: / .) are selectable.

With the **Variable Time Formats** package, Military style time numbering in hours and minutes (14:45) can be entered into the message for more precise production tracking. Time can be printed as hour and minutes, hours only or minutes only. Delimiters (: / .) are selectable.

## Software Package No.3

This software package contains **Shift Coding, Date Offset** and **Product Counter**, including all of the features contained in software package 1, 1.5 and 2.

**Shift Coding** allows the user to break the work day into 6 or less individual shifts. To identify each shift you can print either a single number or alpha character to identify each shift.

The **Date Offset** feature was designed so you could automatically rollover the expiration date. The user can program in up to 999 days and the printer will automatically advance the date by that value.

The **Product Counter** gives you the ability to count the number of products you have printed within a specific programmed time period.

The **EVOLUTION Ink Jet Printers** can be easily customized to fit each individual users requirements. Font styles, character heights (different than the standard sizes), and logos can be supplied and easily added with optional data flash cards.

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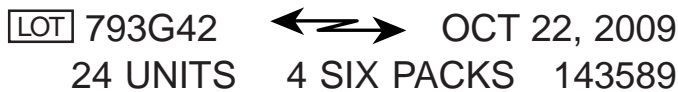
**Logo Download Packages**

The **Logo Download Software Package** gives the user the ability to download a BMP file directly to the print head module from the Data Flash Card. A bitmap file is simply an image file containing anything from multiple lines of text, company logos, intricate graphics or barcodes. Logos can be created by the user in any graphics program that is capable of producing a 2-bit black and white image in Bitmap (BMP) format. A standard feature on the Evolution printers is the ability to print up to three images in either the one line mode or the two line mode. Bitmap files can also be custom ordered and supplied on a Data Flash Card ready to be downloaded into the print head module.

**Example of single line, logos and text image:**



**Example of dual line symbols and text:**



**Example of single line, barcode image:**



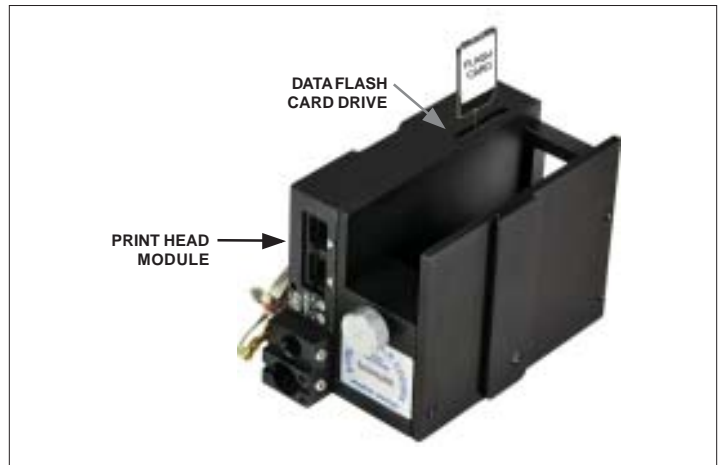
**NOTE:** When using a bitmap barcode, the barcode must be static. The Evolution I-LX is not designed for barcode variable input. If the barcode needs to change, a new bitmap image with the changes must be downloaded for use.

**EVOLUTION-Net Software**

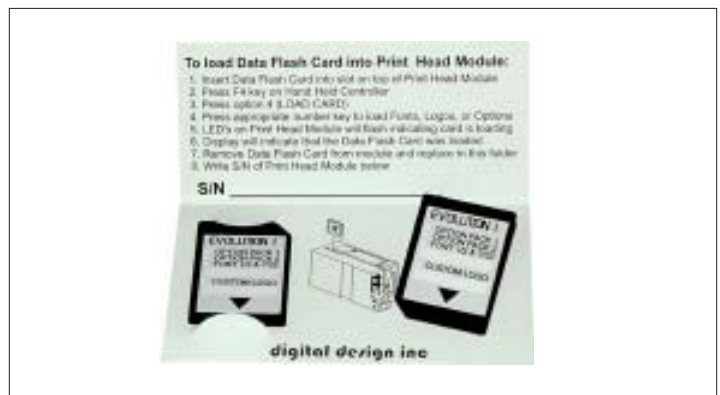
The Evolution-Net software is a PC resident package that gives the user complete control of all the Evolution printers within the manufacturing area. Create messages, monitor printers and more all from a central location. Due to the varying lengths, all interconnect cables are optional. Please ask your distributor for complete details.

**Data Flash Card**

The Software packages are supplied on a Data Flash Card and can be easily installed in the field. Simply insert the Flash Card into the slot on top of the print head module and follow the instructions on the box, it's that easy. Each Flash Card is intended to be used in only one print head module so if the same software package is required in more than one print head, you must purchase a separate package for each head required for your application.



**PRINTEAD MODULE**



**DATA FLASH CARD**

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