Technical Bulletin **EVOLUTION 2-LX INK JET PRINTER**

for Porous Surfaces

The Evolution 2-LX Printer is a high resolution, large character ink jet printer. This efficient, affordable, maintenance free unit uses Lexmark™ Inkjet technology to deliver bold, highly legible, fully formed characters at 300 and 600 DPI. The most exclusive feature on the Evolution LX-II is the ability to print mixed-raster messages. This means that you can print two different size fonts on the same line. The Evolution II-LX is efficient, affordable & maintenance free, printing 20% more printable characters from a greater print distance at production line speeds of up to 200 feet per minute.



This system comes equipped with a hand held controller with tactile keypad for message entry, and a LCD graphics display, printhead module, breakaway mounting bracketry and four character heights in the Arial style font, 1/2", 7/32", 1/8" and 3/32". The controller is also capable of controlling up to 32 individual printhead

Other features include, Expanded Message length, Message storage of up to 100 messages in the controller, Programmable line speed print delay & print direction, Inter-character spacing, Inverted printing, Auto message

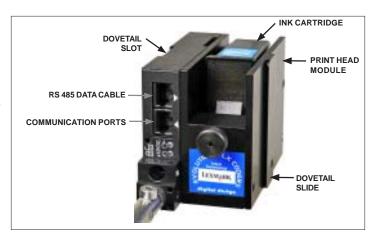
repeat, Password protection, Variable time and date formats, Sequential numbering & Lot counter, Shift coding, Date offset, Product counter and eight barcode symbologies which include I 2 of 5, Code 39, UPC-A, UPC-E, 128 B, 128 C, EAN 8 and EAN 13. Multiple language prompts in English & Spanish.

modules.

The Evolution 2-LX printer has two modes, a single line and a two-line mode. The single line mode allows you to print a 1/2" characters followed by 2,3 or 4 lines of either 7/32", 1/8" or 3/ 32" size text. The two line mode allows you to print a half height message of one line of 7/32" followed by 4 lines of smaller text. You can replace the default fonts with alternate fonts but only 4 different font styles can be resident at one time.

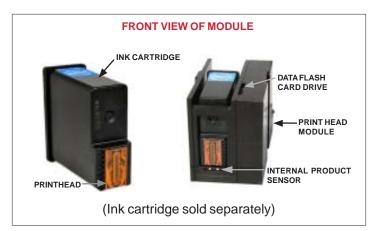
Alternate font heights are available to replace the default fonts. Font styles, logos, graphic bitmap images and software packages can be supplied on Data Flash Card media and easily loaded into the print head module, however, there can only be four different size fonts resident in the Evolution II-LX printer at one time.

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. P.O. Box 871 - St. Petersburg, FL 33731 - U.S.A.

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The Mounting Bracket will hold up to 4 separate print head modules at once. Asmall RS 485 data cable is used to connect each module together allowing the hand held controller to network all of the print heads. When using multiple print heads, each print head module has a discreet address so you can identify them for message entry. The hand

held controller is capable of controlling up to 32 individual printhead modules. A communication cable is used to connect the modules to the printers on the next production line in the manufacturing area.

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 2-LX printer 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



MIXED RASTER PRINTING



PRINT ON DISPLAY BOX

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Software Packages

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. 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:

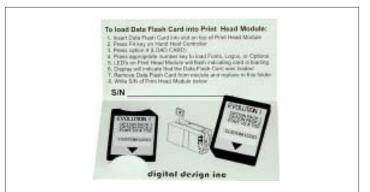


Example of dual line symbols and text:

LOT 793G42 ← → OCT 22, 2009 24 UNITS 4 SIX PACKS 143589

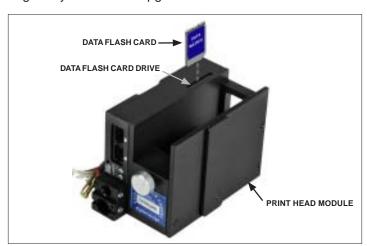
Data Flash Card

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.



Evolution 2-LX Printer Software Package

There is one Optional Software Package available for the Evolution II-LX printer ,2D barcode symbology. This software was designed to generate and print data matrix symbologies. Features included are recognition of barcodes that are up to 60% damaged, area-efficient matrix, programmable size of the matrix (up to 1/2" x 1/2") and encoding message in the matrix (up to 48 alpha-numeric characters). Characters, numbers and text data may be enclosed. This can be ordered along with the original system or field upgrade via data flash card.





Data Matrix Symbol Encoding

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.

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