

*THERMAL/THERMAL TRANSFER BAR CODE PRINTER*

# RING 4012 PMH



**HIGH PERFORMANCE**

**HEAVY DUTY PRINTER**

- HIGH PERFORMANCE, RELIABLE AND DURABLE
- RIDGED STEEL CABINET
- 300 DPI, 8 INCH/SEC.
- HIGH SPEED PROCESSING BY 32 BIT RISC CPU
- 16MB SDRAM & 4MB FLASH MEMORY
- PEEL OFF MODE AS STANDARD
- LABEL MAKING SOFTWARE & WINDOWS DRIVERS
- VARIOUS OPTIONS



## RING 4012PMH SPECIFICATIONS

### PRINT METHOD

- Thermal Transfer/Direct Thermal
- Harmonic (History Control Print head)

### MEDIA TYPE

- Die cut labels
- Butt cut labels tags
- Tag stock
- Roll stock (continuous s/o die cuts)
- Fan Fold

### PRINT WIDTH

- 4.25" / 108 mm

### MEDIA WIDTH

- 1"/15 mm to 4.5" / 116 mm

### MEDIA THICKNESS

- .0025" to .0100" / .0635mm to .254mm

### CABINET

- All steel cabinet

### LABEL ROLL

- 8" / 210 mm maximum diameter  
(6" / 150 mm max. for I. Rewinder)

### RIBBON ROLL

- 3" / 78 mm maximum diameter

### DOT RESOLUTION

- 300 DPI / 11.8 Dot per mm

### PRINT LENGTH

- 4.25" \* 51" (108 \* 1300 mm)

### PRINT SPEED

- 1" - 8"/sec. (15 mm - 200 mm/sec.)

### BAR CODE

- Code 39, Code 93, Code 128, NW7, 2 of 5 (Industrial, Matrix and interleaved), EAN-JAN 13/8, UPC-A/E, EAN128 QR Code, PDF417, Data Matrix, Maxi Code

### MEMORY

- 16MB SDRAM
- 4MB Flash memory  
(Up to 16MB as option)

### LCD DISPLAY

- 2 lines by 16 characters (Alpha / Numeric)
- Back Light

### SENSORS

- Ribbon sensor (Reflective method)
- Label sensor (Transmit method)
- Home position  
(Transmit-Auto calibration method)  
(Reflective sensor as option)

### SOFTWARE

- Bartender Ultra Lite Plus
- Windows Drivers

### FONT CHARACTER SIZE IN DOTS

- 8 Character Sets (Alpha/Numeric and symbols) 8\*8, 12\*12, 16\*16, 16\*24, 24\*24, 24\*26, 32\*40, 48\*60  
Expansion is 1-10 and 16 times  
(Both directions)
- 5-OCRB Character Sets  
(4 Numeric and 1 Alpha/Numeric)  
Numeric - 16\*18, 24\*27, 32\*36 and 40\*45  
Alpha/Numeric - 32\*32  
NOTE : Should Not Expand
- Scalable Smooth Fonts (Bitstream Swiss 721) Programmable  
32-720 Dot width  
32-720 Dot length  
Italic Slant Programmable 10, 15 and 20 degrees. NOTE : 8-31 Dots printing is available but must be matched properly with speed and media
- Down loadable font.

### EXTERNAL CHARACTER BY DOT PROGRAM

- Programable Expansion  
Characters 256 (24X, 24Y)

### PRINTING MODES & FUNCTIONS

- Peel off, Tear off (demand type) with label back feed for top of label printing.
- Back printing (strip-for continuous printing of labels. Can be used with optional External Rewinder)
- Butt cut label printing  
(Requires optional back side mark sensor)

### PROGRAMMING LANGUAGE FEATURES

- Advanced Label marking Language-ALL
- ALL commands are all ASCII characters. This allows flexibility with many environments and platforms
- Easy to program and format printing areas
- Pixel programming allows expanded area of up to 4 times
- Four direction print rotation (0, 90, 180 & 270 degrees)
- Reverse print and area fill in
- Mirror print
- Half Tones
- Lines, dotted lines, angle lines and boxes
- Bit image data transfer and printing
- Down loadable graphics, text, font and formats to optional memory card
- Character Set (Code page)table
- Serializing (Numeric)
- Time and date (OPT)
- Communication and print functions

### ERROR INDICATORS

- Label / Ribbon empty
- Head open
- Communication
- Grammatical
- Parameter  
(Each error is notified by buzzer and LCD)

### ADJUSTABLE PRINT FUNCTIONS SELECTABLE THROUGH FRONT PANEL OR BY SOFTWARE

- Print Speed / Energy Settings
- Print Density
- Label Print Position
- Cutting Position
- Thermal Transfer / Direct Thermal
- Test Printing
- Ready / Pause

### COMMUNICATION INTERFACE- SELECTABLE THROUGH FRONT PANEL OR BY SOFTWARE

- USB / Parallel (User select)
- RS-232 / to 115,200 baud rate  
Line Control-RS-CS, XON-XOFF, ER-DR  
Stop Bits  
Parity  
Data length

### DIMENSIONS

- 8.5"W\*12"H\*16"D  
220W\*300H\*405 mm

### WEIGHT

- 27.5 lb / 12.5 kg

### POWER SOURCE

- Multiple Power Supply  
Industrial Standard  
115 volts +-10% AC 50/60 HZ  
240 volts +-10% AC 50/60 HZ

Built to UL/CSA safety standard and FCC emissions standards.

### Environmental

- Operating temperature  
41 to 104 Fahrenheit / 5 to 40 Centigrade
- Relative humidity below 85%  
Non-condensing
- Ventilation : Air Movement
- Dust : Non-Conducting, Non-Corrosive

### OPTIONS

- Cutter ( For thin label)
- Cutter (For thick label)
- Reflective Sensor
- Print Format Resister
- Font memory (8, 12, 16MB)
- Internal Rewinder
- LAN Interface  
100 Base - TX/10Base-T  
(TCP/IP Protocol)
- USB
- Verifier for Barcode
- Verifier for 2D Code

### APPROVALS

- FCC Class A ; U/L ; TÜV ; CE

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