RANGE BROCHURE

GAME CHANGER BIXOLON

Laser Printing Solution

Laser Label Printer and Media



Durable Performance for Long-term Tracking

When labels must last, choose laser.

BIXOLON's laser label solution uses laser technology to create highly durable, scratch-resistant labels without ink, toner, or ribbon. Built for environments where labels require longevity, the XLR-40 provides an ideal solution for asset identification, compliance labelling, and long-term traceability.

Why BIXOLON?

Both the BIXOLON Laser Label Solution and conventional laser markers produce durable, high-quality results. However, conventional laser markers engrave content directly onto the surface of the media, generating fumes during the marking process and typically require a suction system. BIXOLON's Laser Solution prints within the mid-layer of B-laser Label™ Media, producing durable labels without engraving the surface. The outer surface of the media acts as a protective barrier, making the printed output resistant to abrasion, chemicals, and extreme temperatures. The XLR-40 supports long-term product identification and traceability for maintenance and after-sales service.



BIXOLON Laser Printing

General Laser Marking



Durability

Laser-printed content is sealed beneath a protective layer providing resistance to wear, UV exposure, moisture and extreme temperatures.



High Print Quality

Delivers precise print quality at resolutions of up to 2,000 dpi. A large amount of data can be printed in a compact yet clear label format.



Cost-efficient

No ribbon or printhead to replace. Maintenance requirements are reduced, helping to minimise downtime and support cost-efficient operations.

BIXOLON Laser Solution Lineup

BIXOLON's laser label solution includes both a 4-inch laser label printer and laser labels, making it ideal for industrial applications where permanent, non-erasable labelling is required.

XLR-40

4-inch Laser Label Printer

- **Ultra-High Print Quality**
  Resolutions of up to 2,000 dpi
- **Long Laser Lifetime**
  Stable laser printing performance over time (100,000 hours of laser lifetime)
- **Cost-Efficient Operation**
  No ink, toner, ribbon or TPH required
- **Label Design Software**
  Compatible with BarTender®

B-laser Label™

Laser Label Media

The silver PET-based B-laser Label™ is engineered exclusively for the BIXOLON XLR-40 laser printer. Designed for the XLR-40's mid-layer laser printing technology, it produces highly durable labels with long-term resistance to scratches, heat, and chemicals.

Customisation

- Flexible format options: jumbo rolls up to 1,080 mm wide, as well as slit-roll and die-cut converting options
- Additional capabilities: laminating and four-colour printing options available

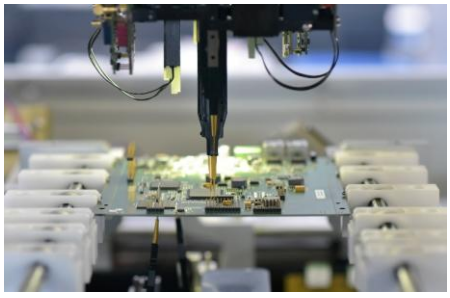
Applications

Built for Demanding Environments

- Outdoor Equipment: Solar panels, pole transformers, and equipment exposed to UV rays, high temperatures and humidity
- Consumer Electronics: Smudging-resistant labels for long-term warranty and traceability
- Healthcare: UDI and serial number labels withstand sterilisation and harsh chemicals










XLR-40

4-inch Laser Label Printer



Specifications

Print Characteristics
Print Method
Laser
Print Speed
** Up to 3,000 mm/sec
Print Resolution
2,000 dpi
Printing Area
108 x 108 mm
Sensor
Transmissive (Adjustable)

Media Characteristics
Media Type
Gap
Media Width
20 to 114 mm
Media Roll Diameter
Up to 180 mm
Media Thickness
0.08 to 0.5 mm
Supply Method
Easy Paper Loading
Inner Core
76 mm

Laser Characteristics
Laser Type
Fibre
Laser Power
Up to 20 W
Wavelength
1064 nm
Cooling Method
Air-cooled
Pulse Energy
XLR-40J: 0.8 mJ
XLR-40M: 0.7 mJ
Frequency Range
XLR-40J: 20 to 600 kHz
XLR-40M: 20 to 80 kHz

Physical Characteristics
Dimensions (WxLxH)
290 x 510 x 405 mm
(11.42 x 20.07 x 15.94 inch)
Weight
XLR-40J: 31 kg (68.3 lbs.)
XLR-40M: Approx. 31.2 kg (68.8 lbs.)
Electrical
Internal Power Adapter 100-240 V, 50/60 Hz
Display
STN/Blue LCD (Backlight LED)

Performance Characteristics
Interface
USB

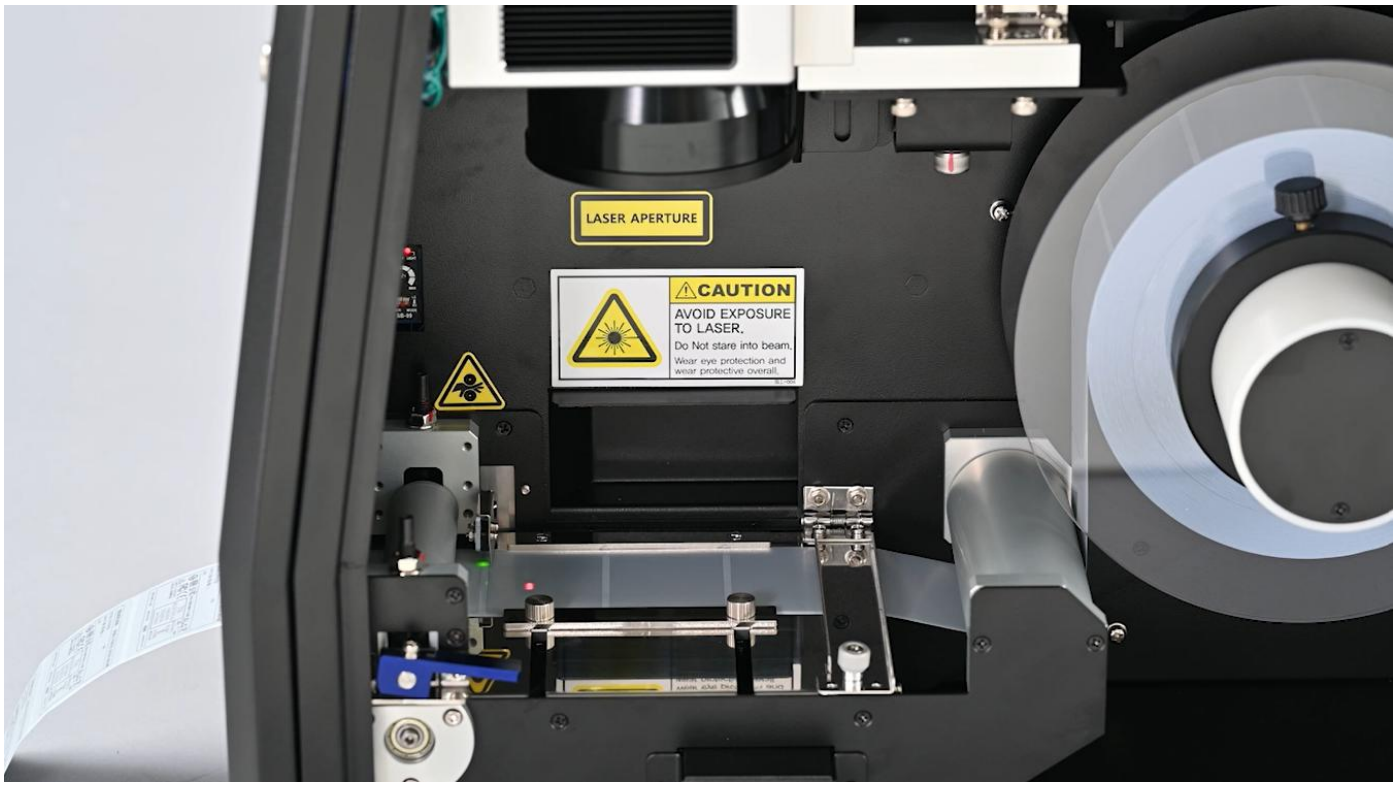
Environment Characteristics
Temperature
Operating: 10 to 35°C (50 to 95°F)
Storage: -10 to 60°C (14 to 140°F)
(non-condensing condition)
Humidity
Operating: 10 to 80% RH
Storage: 5 to 90% RH
(non-condensing condition)

Software
Driver/Utility
Windows® Driver

Fonts/Graphics/Symbologies
Fonts
TTF Windows Font
Graphics
Bitmap, JPG

Accessories
Standard
Power Cord, USB Cable

** Printing speed is based on scanner performance (up to 3,000 mm/sec) and includes both printing (laser ON) and non-printing (laser OFF) movements. Actual printing time may vary depending on factors such as content, marked area, jump distance, resolution and acceleration/deceleration conditions.



B-laser Label™

Laser Label Media



Label Type

	Permanent	Restick
Matt Silver	MP (UL Certified)	MR
Glossy Silver	GP	GR

Permanent
- 1 Layer
- Suitable for permanent data security
- The printed information is destroyed upon removal or reapplication

Restick
- 2 Layers
- Removable and repositionable
- The printed content remains intact and does not peel off during reapplication

Matt Silver
- Appearance: Dull, non-shiny, smooth but flat
- Light reflection: Low (reduces glare)
- Perceived colour: Softer and more muted
- Fingerprints/scratches: Much less noticeable
- Typical use: Industrial labels, security labels, barcodes, or where readability matters under strong lighting

Glossy Silver
- Appearance: Shiny, reflective, mirror-like
- Light reflection: High
- Perceived colour: Looks brighter and more vivid
- Fingerprints/scratches: More visible
- Typical use: Branding where visual impact matters, premium or decorative labels. The GR model is preferred for transitioning from metal nameplates.

Comparison

Aspect	Matt Silver	Glossy Silver
Shine	Low	High
Glare	Minimal	High
Readability	Better in various lighting conditions	Can suffer in bright light
Premium look	Subtle / professional	Flashy
Smudge visibility	Low	High

- Choose a Glossy Silver for high visual impact
- Choose a Matt Silver for low glare, readability under bright lighting and a subtle appearance.

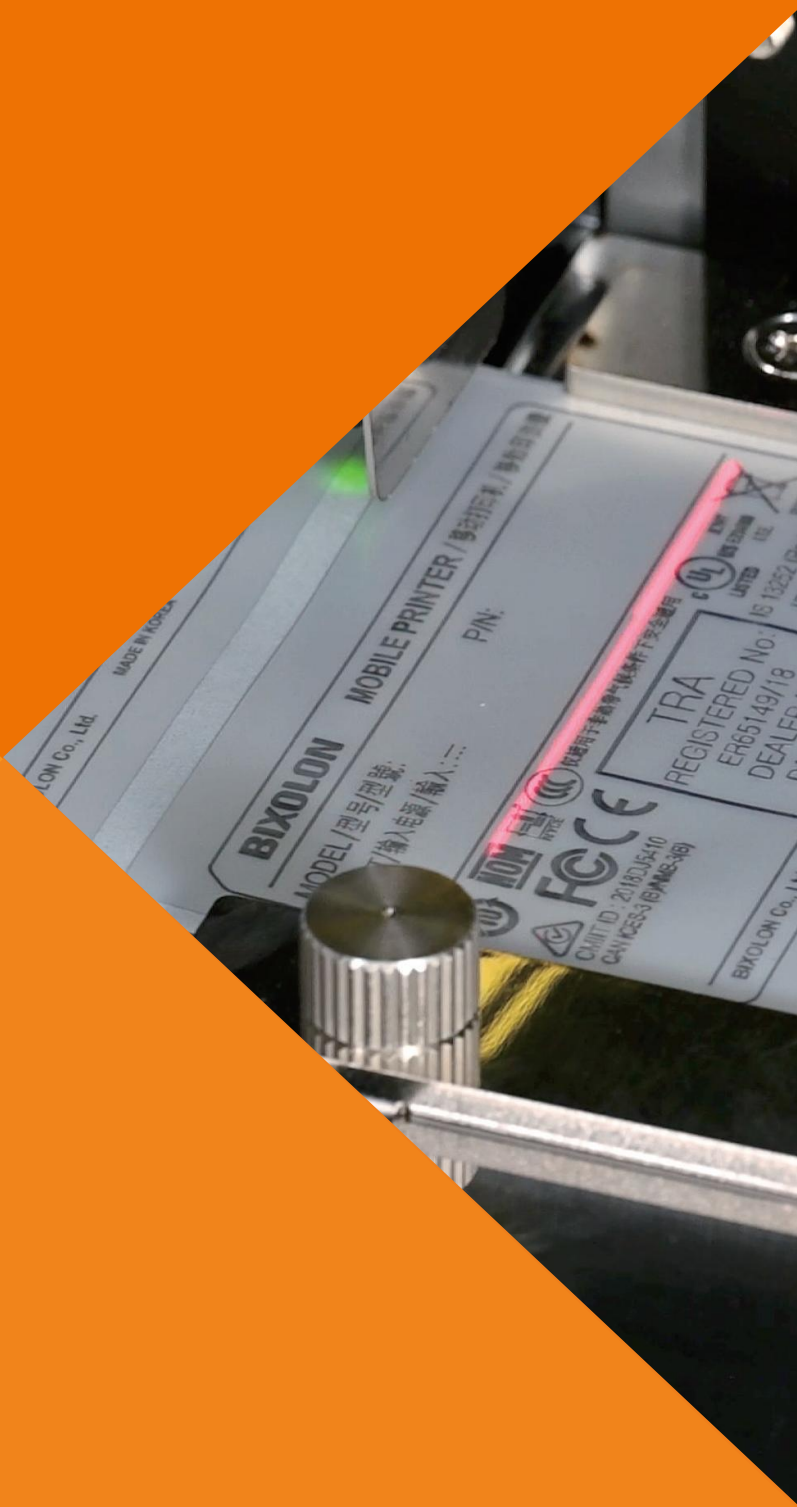
Specifications

	MP	MR	GP	GR
Colour	Matt Silver		Glossy Silver	
Material	Polyester (PET)			
Data Printing	Laser Print (Laser Type: Fibre)			
Thickness	50 µm (+Adhesive 20 → Total → 70 µm ± 5 µm)	85 µm (+Adhesive 20 → Total → 105 µm ± 5 µm)	50 µm	85 µm
Adhesive Strength	1000 gf/25 mm			
Liner	Glassine (Thickness 53 µm, Weight 65 g/m²)			

RANGE BROCHURE

YOUR PRINTING CHALLENGE SOLVED





BIXOLON
www.BIXOLON.com

BIXOLON Co., Ltd.
+82 31 218 5500
sales@bixolon.com

BIXOLON America Inc.
+1 858 764 4580
sales@bixolonusa.com

BIXOLON Mexico
+521 55 8852 7880
marcelo@bixolonmx.com

BIXOLON Europe GmbH
+49 211 68 78 54 0
sales@bixolon.de

BIXOLON MEA
+971 4 222 6480
Russell@bixolon.com

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