

Roll to Roll LEDUV-Inkjet Printer

# UJV500-160

**Mimaki**™

Product Brochure



High productivity  
and high weatherability  
Inkjet print signage



MAX  
60m<sup>2</sup>/h



## High Speed LED-UV ink: LUS-150

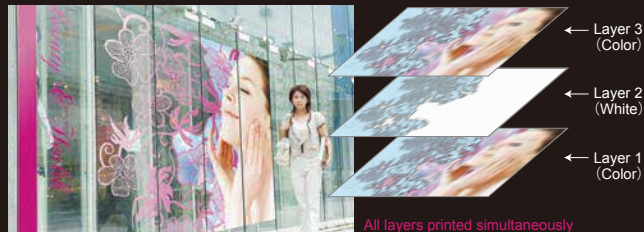
LUS-150 has the best curing property for high speed printing. This ink offers improved curing times resulting in a less tactile sticky feeling. This ink is flexible up to 150% resulting in increased elasticity and bending performance on a wide variety of media and substrates with little cracking. Additionally, white ink allows for printing on transparent film for window graphics.

\* As the flexibility of LUS-150 ink may vary according to the substrate, please verify your substrate in advance.



### Instantly dry, 3 layer white ink

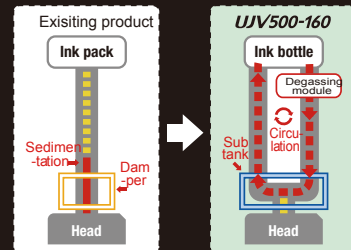
A 3-layer print of color, white and color can be performed simultaneously. Printing a base layer of white ink reproduces the natural beauty of process colors that are printed on transparent substrates, with high precision and no multi-pass color registration shift.



### White ink circulation system : MCT

By periodically circulating white ink in the line, pigment deposition is prevented. This accomplishes stable production and reduction of ink discharge and waste.

\* MCT (Mimaki Circulation Technology) works only with white ink.



MCT & MDM image

**The high media compatibility of inks opens a door to a wide range of applications for inkjet print signage.**

**for LUS-150 ink**

## Roll to Roll LEDUV-Inkjet Printer UJV500-160

**for LUS-200 ink**

**Outdoor durability is guaranteed by 3M™ MCS™ Warranty**

**Outdoor durability in warranty and 200% flexibility for vehicle wraps**

### Maximizing the capability of inkjet print signage

Achieve high speed, high quality printing with the UJV500-160, along with guaranteed outdoor durability from 3M's "3M™ MCS™ Warranty".

The long term warranty and the 200% flexibility ideal for curved surface applications open up new possibilities in the inkjet signage industry.



#### merit 1

Having an outdoor durability in warranty (\*) allows for installation of printed materials in places where regular maintenance is not possible, without worrying about deterioration. Additionally, applications with severe standards for outdoor durability can now be achieved.

#### merit 2

The new UV ink "LUS-200", which has been jointly-developed with 3M, can stretch up to 200% after curing. Since stretching will not crack the image, the LUS-200 ink is ideal for applications with curved surfaces such as vehicle wraps.

\* LUS = LED UV Stretchable ink

\* The flexibility of LUS-200 inks may vary according to the substrate, please verify your substrate in advance.

### About the 3M™ MCS™ Warranty

When finished products are printed using the UJV500-160 printer and LUS-200 ink onto media specified by 3M, and are installed properly according to 3M's instructions, the quality is guaranteed for the warranty period.

① Outdoor durability is guaranteed.

② When a warranty letter is needed, an application must be completed. Following this application, a screening by 3M will be performed. If approved, issuance of the warranty certificate will follow.



\* For further details, please refer to 3M's guide "Certificate of 3M™ MCS™ Warranty Program".  
\* Warranty periods vary based on type of application, type of media, and graphic protection.



# excellence





High  
Speed

# Max Speed 60m<sup>2</sup>/h

High-speed LED-UV printing with unrivaled beauty.  
Combination of high speed and quality printing enable to shorten the delivery time and increase business opportunity.

## High Speed Print

### Max Print Speed 60m<sup>2</sup>/h

#### Newly developed print head

The UJV500-160 can print at high speeds up to 60 m<sup>2</sup>/h. A speed of 24 m<sup>2</sup>/h can be reached while printing with white ink. The number of print heads and nozzles has been updated. The six 2 inch print heads are aligned in a staggered array, which is optimized to eject ink effectively.

\* 1 head=1,280 nozzles (320 nozzles X 4 rows), In total: 7,680 nozzles (1,280 nozzle X 6 heads)

7,680  
nozzles

#### Print Speed

4-color ink set C M Y K

High Speed	300x450HQ 6P Bi/Normal	60m <sup>2</sup> /h
Production	600x600dpi 12P Bi/Hi	45m <sup>2</sup> /h
Standard	600x900dpi 12P Bi/Hi	30m <sup>2</sup> /h
High Resolution	1200x1200dpi 16P Bi/Hi	12m <sup>2</sup> /h

4-color + white ink set C M Y K + (W) (W)

High Speed	300x450HQ 12P Bi/Normal	White	30m <sup>2</sup> /h
		2Layer	15m <sup>2</sup> /h
		3Layer	10m <sup>2</sup> /h
Production	600x600dpi 16P Bi/Hi	White	23m <sup>2</sup> /h
		2Layer	11.5m <sup>2</sup> /h
		3Layer	7.5m <sup>2</sup> /h
Standard	600x900dpi 24P Bi/Hi	White	15m <sup>2</sup> /h
		2Layer	7.5m <sup>2</sup> /h
		3Layer	5m <sup>2</sup> /h
High Resolution	1200x1200dpi 32P Bi/Hi	White	6m <sup>2</sup> /h
		2Layer	3m <sup>2</sup> /h
		3Layer	2m <sup>2</sup> /h

The print speeds above are the results of printing on media with a 1,610mm width. Depending on the firmware setting, the print speeds above may not be reproduced.

#### Newly developed LED-UV Unit



Curing efficiency has been improved due to renovating the LED-UV unit. In addition to being long-lasting and energy-saving, LED UV lamps do not generate excessive heat. This enables printing onto a wider range of materials, including heat-sensitive substrates, without media deformation.

## High Quality Print

### "MAPS" - a mask pattern that reduces banding

In addition to the normal pattern, you can select ""MAPS"" which effectively reduces banding. MAPS implements printing in a gradational mask pattern and diminishes the appearance of banding.

\* Depending on the setting of MAPS, print speed varies. (MAPS = Mimaki Advanced Pass System)



Normal pattern



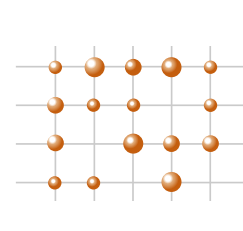
MAPS

### Smooth and beautiful gradation is achieved with Mimaki's unique head control technique

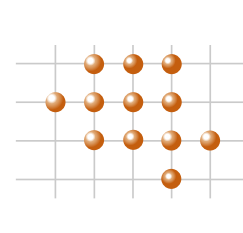
Variable dot printing ejects ink drops in 3 different dot sizes. This smooth gradation without granular appearance is even achieved with 4-color printing.



Variable dots



Normal dots







High  
Quality

## User Friendly

### Vertical Tension Take-up System Newly developed take-up device enables stable continuous operation

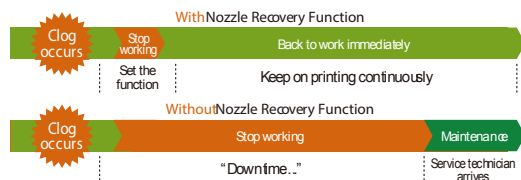
By pulling media down vertically, feeding errors are reduced, thus increasing print stability. This allows for continuous printing onto large media with a maximum roll diameter of 300mm and weight of 60kg. The high speed printing of the UJV500-160 enables high productivity. Additionally, the take up unit is positioned more towards the front than conventional printers, allowing media to be set more easily.



### Nozzle Recovery Function enables continuous operation

Previously, repairs by service personnel were required when nozzle clogging was not corrected by cleaning. Now, the nozzle recovery system allows for printing to proceed as if the nozzle is not clogged (\*6), without slowing down the print speed.

\*The recoverability of this function is limited.



## Eco Friendly

### Refined, environmentally friendly functions

#### Low VOCs & Ozone-Free

UV curing generates minimal VOCs. LED UV ink is ozone-free.

#### Power saving, long lasting LED-UV lamp

The LED-UV lamp generates very little heat. Unlike metal halide lamps, LED-UV lamps light up only where the image is printed, which leads to cost-effective production. As the life of the lamp is very long, both environmentally-friendly and economical production is supported.

### Ink supplied in bottles



Refill inks with bottles

Ink Station

Each UV ink is supplied in a high-capacity bottle instead of a cartridge. This economical and ecological package contributes to reduce the amount of industrial waste and running costs.

### Low cost ink supplied in bottles

MDM, which removes nozzle trouble caused by bubbles in the ink, is employed. Ink that has not been degassed is supplied in bottles (the printer handles the degassing), both of which enable lower ink costs.

※ MDM = Mimaki Degassing Module



User & Eco  
Friendly



It is not so useful if high performance software is hard to use... The new RasterLink6 is focused on being simple and usable.

With its many new functions, "Software RIP for Everybody" has been achieved and provides for more professional and advanced finished products through its universal ease of use.

#### ● Intuitive and user-friendly operation



Icon setting items are indicated by icons, enabling intended operations to be performed intuitively without hesitation.

#### ☑ ホワイトインク3層プリントの設定も簡単



☑ White color printing data for 2nd layer and color printing data for 3rd layer can be created from Color printing data for 1st layer by one-click.



☑ Easy 3 layer print setting. Selecting 3 print jobs for 3 layer printing, and press the "合成" button. Changing printing order of print jobs and mirroring are also easily set.



☑ Multiple print jobs for 3 layer printing can be laid out and copied on the same media. Automatic layout function optimizes print data layout for saving media consumption.

#### ● Web update function is supported.

Supports the Web update function that has been well-received in RasterLinkPro5. Program update and profile download can be easily performed via internet.

#### ● Specifications

Item		UJV500-160 for LUS-150 ink	UJV500-160 for LUS-200 ink
Head		On-demand Piezo head (6 printheads with 3 staggered configuration)	
Print width		297mm ~ 1,610 mm	
Print resolution		300dpi, 600dpi, 900dpi, 1,200dpi	
Ink	Type	UV curable ink: LUS-150 ( C, M, Y, K, W )	UV curable ink: LUS-200 ( C, M, Y, K, W )
	Supply system	Supplied by 2L Ink Station	
	Ink Circulation (*1)	White ink circulation by MCT (Mimaki Circulation Technology)	
	Ink degassing module	Equipped with MDM (Mimaki Degassing Module)	
Media	Size	1,620 mm or less	
	Roll weight	60 kg or less	
	Thickness	0.1 mm ~ 1 mm ( The thickness in which media can be feeded )	
	Roll diameter	φ300 mm or less	
	Roll inside diameter	2-inch, 3-inch	
	Cutter	Y-direction cutter after head section	
Media heater		3-way intelligent heater ( Pre/ Print/ After )	
Print gap		1.5 mm ~ 7.0 mm ( Configurable by users, automatic recognition of the thickness )	
Print accuracy	Absolute accuracy	± 0.3 mm or ± 0.3% from specified print distance	
	Repeatability	± 0.2 mm or ± 0.1% from specified print distance	
UV unit	Head unit	Equipped with UV LED ( Lifetime: about 5,000 hours ) *2	
	Post cure unit	Equipped with fluorescent UV tube lamp ( Lifetime: about 1,000 hours ) *2	
Interface		USB 2.0	
Applicable standard		VCCI class A, CE Marking, CB Report, UL, RoHS Directive, Machinery Directive	
Power specification		AC 200 - 240 V 50/60 Hz	
Power consumption		7.2 kVA or less	
Operational environment(*3)	Temperature	15 ℃ - 30 ℃	
	Humidity	35 - 65 %Rh	
	Dust	Equivalent to normal office level	
Dimensions (W X D X H) (*3)		3,852X1,977X1,690 mm	
Weight (*3)		800 kg	

#### ☑ Supplies

Color	Item No.	Remarks
UJV500-160 for LUS-150 ink		
Cyan	LUS20-C-BA	1 litter ink bottle
Magenta	LUS20-M-BA	
Yellow	LUS20-Y-BA	
Black	LUS20-K-BA	
White	LUS15-W-BA	
Ink bottle 2L BK	SPA-0210	1 pcs (empty bottle)
UJV500-160 for LUS-200 ink		
Cyan	LUS20-C-BA	1 litter ink bottle
Magenta	LUS20-M-BA	
Yellow	LUS20-Y-BA	
Black	LUS20-K-BA	
Ink bottle 2L BK	SPA-0210	1 pcs (empty bottle)

\*1 MCT works only with white ink.

\*2 Reference value. There is no guarantee as to the lifetime.

\*3 Ink Station is not included in the dimensions and the weight.

Every UV ink is sold by the liter. Please put it into the Ink Station.

As ink flexibility of LUS-150, LUS-200 may vary according to the substrate, please verify your substrate in advance.

● Some of the samples in this catalogue are artificial renderings. ● Specifications, design and dimensions stated in this catalogue may be subject to change without notice (for technical improvements, etc.). ● The corporate names and merchandise names written on this catalogue are the trademark or registered trademark of the respective corporations. ● Inkjet printers print using extremely fine dots, so colors may vary slightly after replacement of the printing heads. Also note that if using multiple printer units, colors could vary slightly from one unit to other unit due to slight individual differences.

## Celupal

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