Flatbed UV-LED inkjet printer

UJF-3042 MkII UJF-6042 MkII UJF-3042 MkII EX

Creating more value





Product Guide

Mimaki Engineering Co., Ltd.
Global Marketing Department
2017/7/3

Ver 1.4

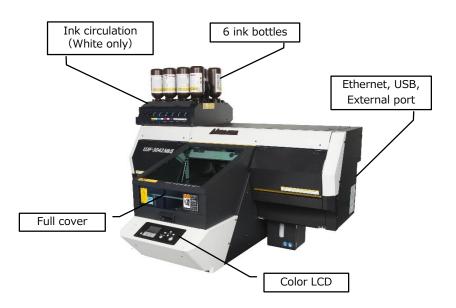
All functions described in this document is available with F/W: ver1.3 or above RasterLink6: ver5.8 or above

Mimaki

Note: The information in this document is subject to change without notice.

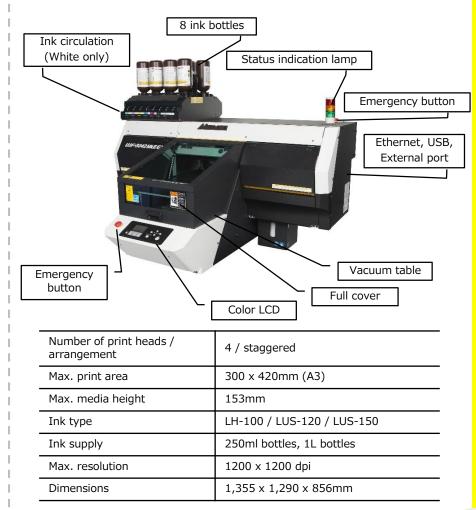
Product overview

*UJF-3042 MkI*I



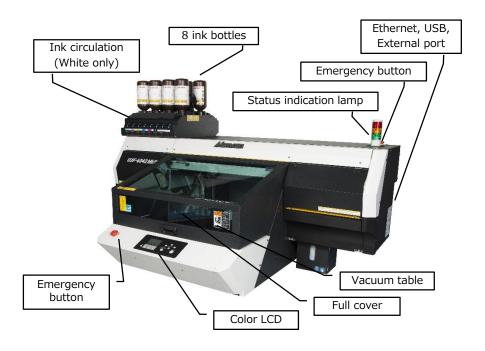
Number of print heads / arrangement	3 / staggered		
Max. print area	300 x 420mm (A3)		
Max. media height	153mm		
Ink type	LH-100 / LUS-120 / LUS-150		
Ink supply	250ml bottles, 1L bottles		
Max. resolution	1200 x 1200 dpi		
Dimensions	1,355 x 1,290 x 856mm		

UJF-3042 MkIIEX



Product overview

UJF-6042 MkII



Number of print heads / arrangement	4 / staggered
Max. print area	610 x 420mm (A2)
Max. media height	153mm
Ink type	LH-100 / LUS-120 / LUS-150
Ink supply	250ml bottles, 1L bottles
Max. resolution	1200 x 1200 dpi
Dimensions	1,665 x 1,290 x 856mm

Features

High productivity to support on-demand production

Staggered print head enables CMYK color + spot color 2 layer simultaneous print

UV-LED printing system for various applications

- Directly printable onto materials with Max. 153mm thickness
- 16 kinds of ink configurations
- High density white for printing onto transparent or colored materials
- Clear ink and 129 kinds of texture library for adding effects
- Inkjet print "PR-200" for higher adhesion
- "LD mode" which is suitable for printing onto the shaped materials

Image quality control technology

- MAPS4: Banding reduction system
- · Variable dots: Grainy appearance reduction system
- Waveform control
- MCC : High quality clear printing system
- Color pre-set "Mimaki Expand Color" creates brilliant color

Uninterrupted printing solution

- NCU* & NRS: Check and recover nozzles automatically for non-stop printing
- MCT : Ink circulation system prevents ink settlement

Environmental and operator conscious printing

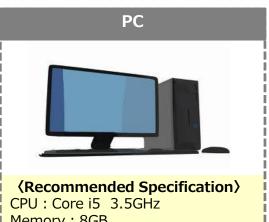
- Full covered structure retaining quality of print and safety of operators
- Environmentally conscious with UV-LED lamp



System configuration



USB2.0 Ethernet Connection



Memory: 8GB

HDD: 500GB

USB2.0: 4 ports or more Network: 1000BASE-T Optical disk drive: DVD-ROM Windows7 Professional 64bit

Monitor: 1366x768

《Options》	UJF-3042 MkⅡ	UJF-3042 MkII EX	UJF-6042MkII
MPM3	Optio	on (MPM3 Ver. 3.1.2 or abov	re)
MTCE	Optio	n (MTCE Ver. 1.2.12 or abo	ve)
Stand	Option	Option	Option
Vacuum table	Option	Standard	Standard
Ionizer unit30/60	Option	Option	Option
NCU Option	Option	Standard	Standard
Status indication lamp unit	Option	Standard	Standard
Ventilating fan unit	Option	Option	Option
Kebab MkII*	Option	Option	-
Kebab MkII L*	-	-	Option



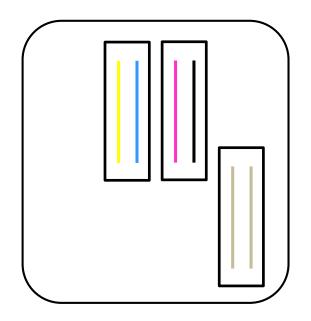
Print head configuration

Staggered print head

Staggered print head enables to print 2 layers of CMYK color and spot color simultaneously*1. It increases productivity.

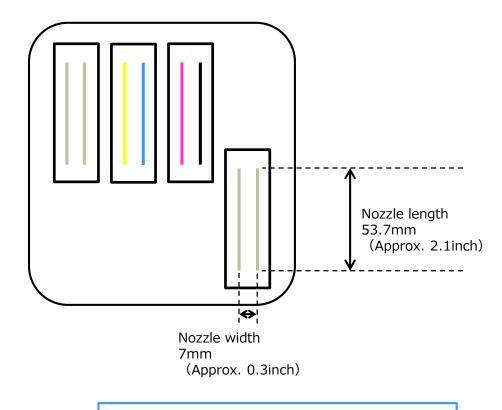
⟨UJF-3042MkⅡ⟩

Staggered 3-head arrangement



(UJF-3042MkIIEX/UJF-6042MkII)

Staggered 4-head arrangement



1head: 636 nozzles (318 nozzles \times 2 row)

^{*1} Simultaneous print cannot be performed with some ink configurations.

^{*} It is necessary to install ink to the all print heads.

Print speed - UJF-3042MkII/3042MkIIEX

Print speed

Maximum print speed of 2.48m²/h increases productivity.

1. Color only

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour* (A4 sheets)
Draft	600x600	8	2.48	3m03s	Approx. 38 sheets
High speed	600x900	12	1.62	4m40s	Approx. 24 sheets
Standard	600x1200	16	1.22	6m12s	Approx. 18 sheets
High quality	1200x1200	16	0.89	8m27s	Approx. 14 sheets

2. Color + Spot (2-layer simultaneous print)

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour* (A4 sheets)
Draft	600x600	8	2.08	3m38s	Approx. 32 sheets
High speed	600x900	12	1.44	5m14s	Approx. 22 sheets
Standard	600x1200	16	1.12	6m46s	Approx. 16 sheets
High quality	1200x1200	16	0.69	10m55s	Approx. 10 sheets

3. Color + White high density mode (2-layer simultaneous print)

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour* (A4 sheets)
Draft	600x600	8	1.88	4m01s	Approx. 28 sheets
High speed	600x900	12	1.33	5m40s	Approx. 20 sheets
Standard	600x1200	16	1.03	7m21s	Approx. 16 sheets
High quality	1200x1200	16	0.62	12m14s	Approx. 8 sheets



Print speed – UJF-6042MkII

Print speed

• Maximum print speed of 3.52m²/h increases productivity.

1. Color only

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour (A4 sheets)
Draft	600x600	8	3.52	4m22s	Approx. 52 sheets
High speed	600x900	12	2.29	6m42s	Approx. 32 sheets
Standard	600x1200	16	1.74	8m51s	Approx. 24 sheets
High quality	1200x1200	16	1.28	11m59s	Approx. 20 sheets

2. Color + Spot (2-layer simultaneous print)

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour (A4 sheets)
Draft	600x600	8	2.99	5m08s	Approx. 44 sheets
High speed	600x900	12	2.06	7m28s	Approx. 32 sheets
Standard	600x1200	16	1.57	9m46s	Approx. 24 sheets
High quality	1200x1200	16	0.96	15m57s	Approx. 12 sheets

3. Color + White high density mode (2-layer simultaneous print)

Mode	Resolution	Pass	Print speed (m²/h)	Print time per table	Productivity per hour (A4 sheets)
Draft	600x600	8	2.75	5m36s	Approx. 40 sheets
High speed	600x900	12	1.86	8m11s	Approx. 28 sheets
Standard	600x1200	16	1.44	10m36s	Approx. 20 sheets
High quality	1200x1200	16	0.85	18m09s	Approx. 12 sheets



Ink types / Ink configurations

16 kinds of ink configurations for different applications

Ink type	Colors	Features / Applications	Ink supply	Ink configurations								
						\angle	Υ	С	М	K	w	w
		[Features]		3042MkⅡ	\angle		Υ	С	М	K	w	Cl
		Ink film is hard and resistant to scratches			\angle	_	Y	С	М	K	W	Pr
LH-100	9C*1	Higher chemical resistance Printed surface has less tackiness	1L		Lc	Lm	Y	C C	M M	K	Pr W	CI W
FU-100	90.1		250ml		Lc	Lm	Y	С	М	K	w	CI
		[Applications] • Name plates		6042MkII	Lc	Lm	Y	С	М	K	w	Pr
		Novelty decorations etc.		3042MkIIEX	Lc	Lm	Υ	С	М	К	Pr	Cl
					Pr	CI	Υ	С	М	К	w	w
							Υ	С	М	К	w	w
		 [Features] Flexible enough to fold (Approx. 170% flexibility) The media is less likely to deform after printing Good media compatibility [Applications] Decoration of flexible materials such as leather, TPU etc. Floor map, directory etc. 	1L 250ml				Υ	С	М	К	w	Cl
							Υ	С	М	K	w	Pr
							Υ	С	М	К	Pr	Cl
LUS-120	9C*1				Lc	Lm	Υ	С	М	K	w	W
					Lc	Lm	Y	С	M	K	W	Cl
					Lc Lc	Lm	Y	С	M M	K	W Pr	Pr Cl
					Pr	Cl	Y	С	M	K	W	W
		[Features]					Y	С	М	K	w	w
		Flexible enough to fold (Approx. 150% flexibility)					Υ	С	М	K	w	Cl
LUS-150*	7C* ²	[Applications]	1L	3042MkⅡ			Υ	С	М	K	w	Pr
203-130	1 / -	Signage Printing on materials which requires	1L				Υ	С	М	К	Pr	Cl
		post processing such as cutting or heating		6042MkII 3042MkII EX	Pr	Cl	Y	С	М	К	w	w

^{*1} Printing in 9 colors cannot be performed.

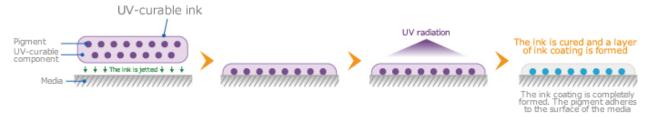
^{*2} Printing in 7 colors cannot be performed on UJF-3042Mk II.

^{*}LUS-150 requires bottle caps for LUS-150 (SPA-0280 Cap A Assy).

Direct printing with UV-LED inkjet system

What is UV-LED inkjet printing?

Printing with "UV ink" which will be cured with UV (ultraviolet) lights. It can be used to print on many different materials since ink will be cured on the surface of materials.



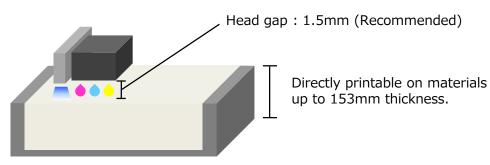
Printable materials*

- · Resin (PC, ABS, PET, Acrylics etc.)
- Glass
- Metal (Aluminum, Stainless etc.)
- Leather
- Wood

and more..

Direct printing on materials up to 153mm thickness

Materials up to 153mm thickness can be printed on UJF-3042/6042Mk $\rm II$, UJF-3042Mk $\rm II$ EX. UV-LED inkjet system allows to print directly on to various materials.



^{*} Adhesion differs depending on the combination of material and ink type. For more details, refer to "Comparison of adhesion" described later in this product guide.



White ink

White ink for printing onto transparent and colored materials

High opacity white can be printed by installing 2 white ink bottles on the machine. It is effective for printing onto transparent or colored materials and for printing 3 layers.

(With white)



(Without white)



White high density mode*

Even higher opacity white can be printed by using "White high density mode." Higher opacity can be achieved by printing with increased ink volume.

Clear ink

Clear ink for adding special effects

Clear ink adds special effects onto printed materials.

"Glossy finish" which adds luxury effect, "Matte finish" which is optimal for texture print, and "Embossed finish" can be done by using clear ink



Without clear



Matte finish



Glossy finish



Texture print (Matte finish)

Clear ink (Texture library)

129 kinds of texture library

"ARTISTA UV Texture Library" has 129 kinds of patterns which can be used as swatch on Adobe Illustrator. Textures can add effects on to the printed materials by printing with clear ink.

《ARTISTA UV Texture Library texture list》



ARTISTA UV Texture Library has the following 3 types:

*BASIC (44 kinds)

Basic patterns

*ARTISTIC (45 kinds)

Floral or symbolic patterns to add design effect

*MODERN (40 kinds)

Patterns to add visual effect

《How to use texture library》

"ARTISTA UV Texture Library" is added to your computer when RasterLink6 has been installed.

- Copy the swatch file from the following folder: C:\footnote{MijSuite}\footnote{Swatch}\text{Illustrator}
- 2. Paste to the following folder: C:\text{Program Files\text{Adobe\text{Adobe Illustrator (\frac{version}} \text{YPresets\text{[\language]} \text{\text{Swatch}}}
- 3. Ready to use on Adobe Illustrator

*The texture list is saved in the following folder: C:\forall MijSuite\forall ColorChart\forall Default



Inkjet primer

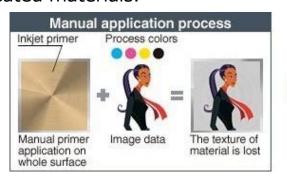
★Inkjet primer is Mimaki's Patented TechnologyPatent number

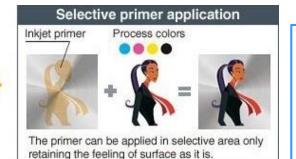
JPN: 5817059

USA: US9,132,685 B2

<u>Inkjet primer "PR-200" improves adhesion</u>

Inkjet primer "PR-200" can be installed on UJF-3042/6042Mk II and UJF-3042Mk II EX. Inkjet primer improves adhesion when color ink does not adhere to materials. PR-200 is optimal for improving adhesion on not only resin, but glass, metals, and surface treated materials.





the necessary part because it can be printed simultaneously with color printing.
By using inkjet primer, the texture of the substrates which was lost in the manual primer application can be kept.

Primer can be applied only to

Comparison of adhesion with/without PR-200*1

(Acrylic)



Without PR-200 (White + color only)



With PR-200 (PR-200 + white + color)

(Aluminum)



Without PR-200 (White + color only)



With PR-200 (PR-200 + white + color)

- *1 Comparison of adhesion by using the crosscut test.
- * Refer to "adhesion" page for the list of adhesion by substrate types with/without PR-200.
- * When printing PR-200, there are recommended density of primer for each resolution. However, print with the setting of "Primer: 100%" when printing with RasterLink6. The recommended density will be automatically applied. For more details, see the print guide at the end of this product guide. (print guide will be added to the product guide official ver.)



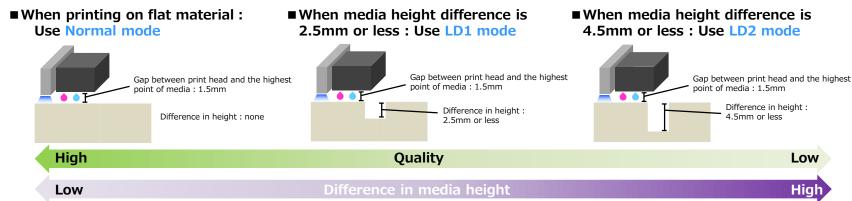
LD mode

LD mode

LD mode is suitable for printing on the materials with media height difference*. Please use the most suitable mode for your materials.

*When the height difference is within 2.5 mm:LD1, within 4.5 mm:LD2

《Different purposes of each mode》



《Print speed for UJF-6042MkII (for both LD1/LD2)》

Print condition	Print mode	Resolution	Pass	Print speed (m²/h)	Print time per table
Color only	Draft	600x600	8	2.63	5m51s
Color offly	Standard	600x1200	16	1.28	12m2s
Color + W	Draft	600x600	8	2.13	7m13s
COIOI + VV	Standard	600x1200	16	1.17	13m9s

*LD2 mode is available only with 600x600dpi

^{*}LD mode is available with LH-100/LUS-120. Since the adherence became worse between media and clear ink / primer ink ,please test it in advance.

^{*}Refrain from printing on the materials have excessive media height difference. The longer head gap may cause the ink mist, which is caused by the ink drop which could not reach the materials. The ink mist may lead to the dislocation of ink drops or nozzle clogging.

^{*}Maintenance must be performed after using the LD mode. LD mode may cause more ink mist compare to the normal mode since it prints on the materials with media height difference. After the printing is finished, cleaning must be performed and nozzle surface needs to be cleaned manually.

^{*}If you are printing on the reflective materials such as mirrors or stainless polishing plate, please test in advance.

Please stop using the substrates if it causes nozzle clogging or droplet flight curvings.

^{*}It is recommended to use the option ionizer unit (OPT-J0414/OPT-J0415) for using LD mode.

^{*}LD mode may increase the frequency of changing the print heads.

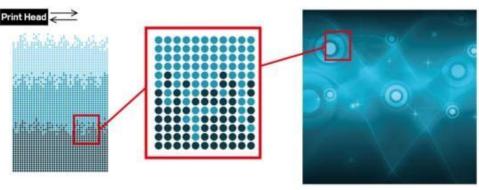
^{*}It is recommended to stop using the LD mode if nozzle clogging happens frequently.

Image quality control technology – MAPS4

MAPS4 (Mimaki Advanced Pass System 4): Banding reduction system

MAPS4 reduces banding and uneven colors by printing passes in gradation-like tone. It disperses ink drops between passes.

(With MAPS (image))



MAPS4 automatically selects the best gradation patterns depending on the media, ink, and print conditions.

(Without MAPS (image))

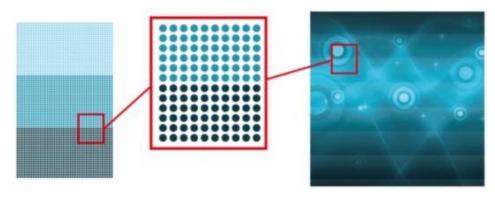
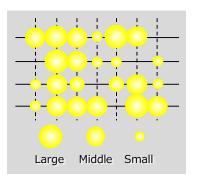


Image quality control technology – Variable dots

Variable dots: Grainy appearance reduction system

Ink dots are ejected in 3 kinds of sizes while printing. It reduces grainy appearance and produce quality image.

(Image of variable dots)





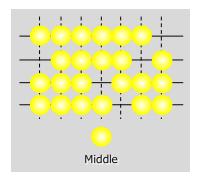


(Variable dots)



The combination of ink dots including minimum 5pl dot reduces grainy appearance.

(Image of fixed dots)







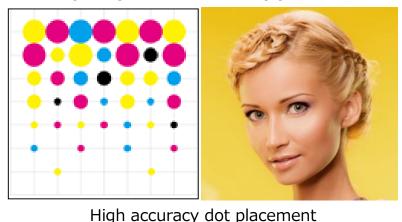
〈Fixed dots〉

Image quality control technology – Waveform control

Waveform control

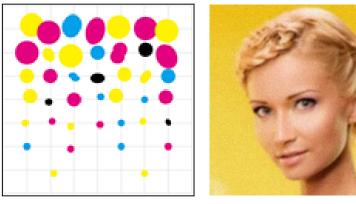
It allows the print head to jet each ink droplet at an optimum angle and to maintain excellent ink droplet circularity. It achieves the accurate placement of ink.

(Ink droplets jetted in as nearly perfect circles)



Sharp finish without grainy appearance

(Ink droplets jetted in as deformed circles)



Ink dots overlap

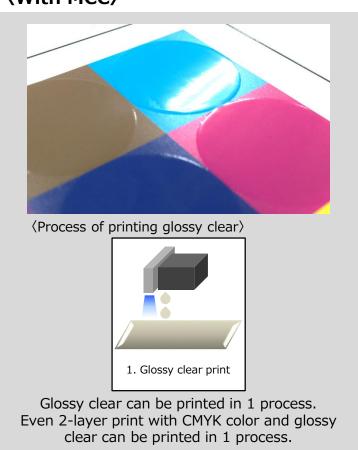
Grainy appearance with blurred edge

Image quality control technology – MCC

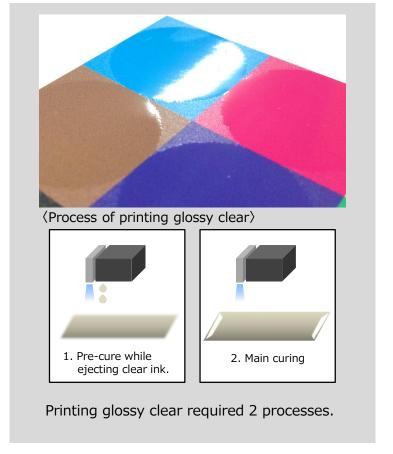
MCC (Mimaki Clear Control): High quality clear printing system

Improved UV-LED lamp controls the curing of clear ink. It provides the beautiful glossy clear by preventing the adhesion of dust and the occurrence of air bubble. It is possible to print glossy clear in one process which provides sharp expression of edges.

(With MCC)



(Without MCC)



Uninterrupted printing solution – NCU & NRS

Automatic maintenance helps non-stop printing

NCU (Nozzle check unit) automatically checks the condition of nozzles. When nozzle clogging are found, the nozzles will be automatically cleaned. When nozzle troubles are not resolved by cleaning, non-defective nozzles are substituted by defective nozzles automatically. Customers can continue the print operations without waiting for a repair by a technician.

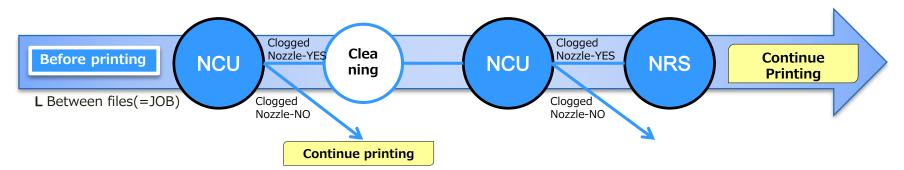
NCU(Nozzle check unit) Automatically detects nozzle clogging. When clogging are found, the nozzles are automatically cleaned. Infrared light detects missed ink droplet(s). Print head Sensor Sensor Sensor

NRS(Nozzle recovery system)

When the nozzle troubles are not resolved by cleaning, non-defective nozzles are substituted by defective nozzles automatically. Customers can continue the print operations without waiting a repair by a technician.

Clogged nozzles are substituted by normal nozzles. It is decided by the information from NCU.

← Non-defective nozzles are substituted by defective nozzles.



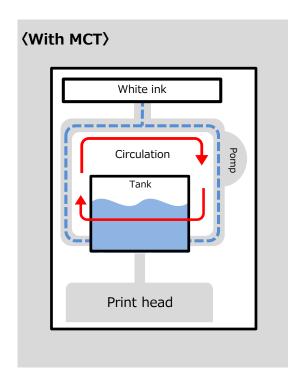
- * It is required to turn on nozzle check, automatic cleaning and automatic nozzle recovery function on the printer.
- * Customers can set timing of NCU by number of sent file.
- * Depending on print condition, NRS does not work.
- * On UJF-3042MkII, NCU is an option.

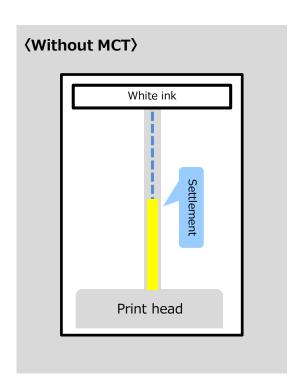


Uninterrupted printing solution – MCT

MCT (Mimaki Circulation Technology): Ink circulation system

UJF-3042/6042Mk II ,UJF-3042MK II EX has ink circulation in the ink tank and ink route. It circulates white ink regularly to prevent settlement ink pigment which may cause nozzle troubles.





Full cover

Full cover for safety and higher quality

Full cover structure retains safety of operators. It also retains print quality by preventing attachment of dust during print.



Full cover

Efficient printing on different materials

Table spacer

Table height is adjustable by using attached table spacer. It allows to print on materials with different thickness.





Thickness of material	Required number of spacer
~53mm	2
50~103mm	1
100~153mm	0

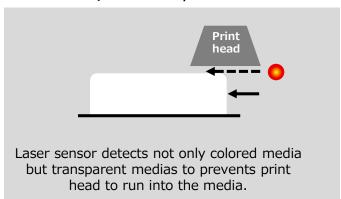
Table spacer

When table spacer is being used

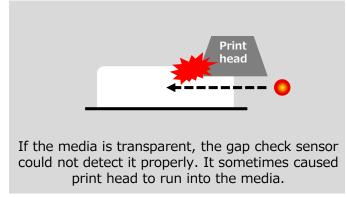
Gap check sensor

Improved gap check sensor detects media using laser sensor. It enables to detect transparent materials^{*1}, and it prevents print head to run into the materials during printing.

(UJF-3042/6042MkII,UJF-3042MkIIEX)



(Conventional machine)





Intuitive operations

Full-color LCD display

Operation panel is 3.45inch(52.56 x 70.08mm) full-color display. It shows*1 more information and offers easy setting and operation.

Status LED

Blinking in blue:

Normal operation

Blinking in red:

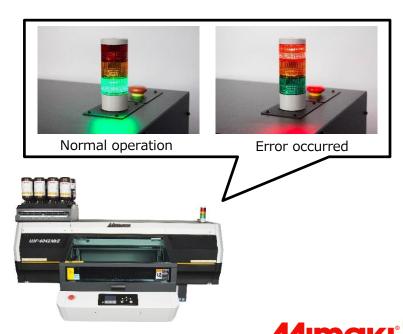
Error occurred





Status indication lamp*2

On UJF-6042Mk II /3042Mk II EX, status indication lamp is installed on the right-top of the machine. Status of the machine can be monitored even from a remote location.



- * 1 Available language : English, Japanese
- * 2 Status indication lamp is an option for UJF-3042MkII.

Network connection

Ethernet

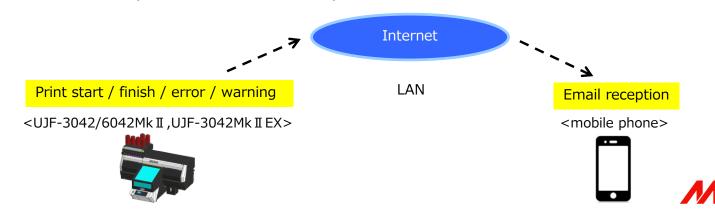
In addition to USB connection*1, Ethernet connection is available on UJF-3042/6042Mk II and UJF-3042Mk II EX. It provides convenience by allowing to connect only one computer and several printers. Installation is done just by adding cables to the network of the office.

*1 USB2.0 (5m recommended) is also supported

- *Please use network cable of category6(CAT6).
- *Connection by relaying router is not supported.
- *When using Ethernet, please build-out printer and RIP PC in the same network.
- *When using switching hub, please use 1000BASE-T supported version.
- *RL6 can register 4 printers at the maximum. However, printing may stop depending on the network condition.

Event mail

Status of the printer can be sent from printer to mobile phone through the internet. Printer status can be always monitored remotely.



Ink supply system

MBIS3 (Mimaki Bulk Ink System3)

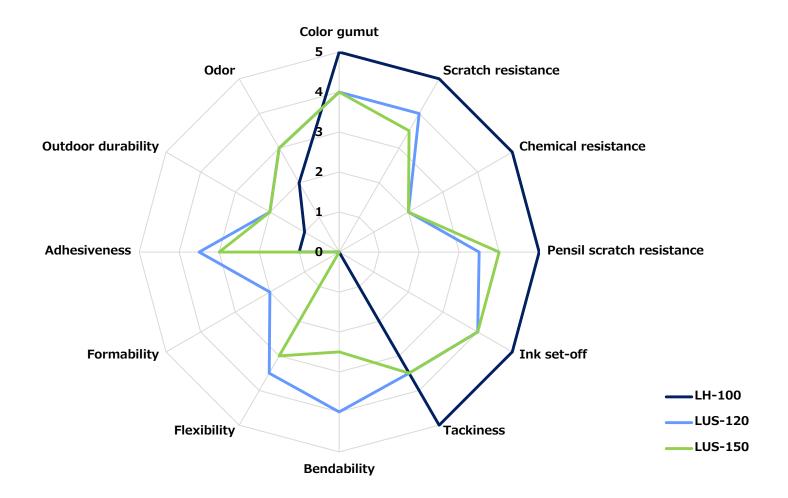
Large volume of 1L ink bottles help to operate continuous large print jobs.





Ink performance (1)

Comparison of ink performance by ink type



Ink performance (2)

Comparison of ink performance by ink type

		LH-100		LUS-120		LUS-150
		Color only	PR-200	Color only	PR-200	Color only
Scratch resistance*1	Pencil hardness*2	5H	2H	2H∼H	НВ∼В	3H∼H
Flexibility	Flexibility	100% (does not stretch)		170% (Stretches 1.7times)		150% (Stretches 1.5times)
	Water	0		0		0
	Ethanol	0		Δ		Δ
Chemical	IPA(100%)	0		×		0
resistance*3 (Rubbing Test)	Xylene(100%)					0
	[Evaluation standards] ○: does not peel off / △: peels off with lower concentration of solution / ×: peels off easily					
	Water	×	Δ	0		0
Chemical resistance*4 (Dipping test)	Hot water(60℃)	×	×	Δ		Δ
	Ethanol(100%)	0 0		××		××
	[Evaluation standards] ○: does not peel off / △: poech: ××: Peels off immediately a				j in ethanol and x	ylene.)

^{*4} When printing on less adhesive medias, UV ink tends to peel off by the penetration of water or chemicals from the print edge.



^{*1} Scratch resistance tends to depend on hardness of ink film.

^{*2} The pencil hardness can be an index of if the ink film can be scratched off with nails. The hardness of nail is around "H", therefore, the use of the ink which is harder than "H" is recommended, except for the case when the adhesion is poor.

^{*3} Evaluation method: Comprehensively evaluated by the test results of primary, secondary, and tertiary colors.

Adhesion

List of adhesion by substrate type

Material	Type of substrate		LH-100		LUS	LUS-150	
Material			Color only	PR-200	Color only	PR-200	Color only
	Polycarbonate		0		0		0
	Polyst	yrene	0	Adheres	0		0
	ABS		0	without primer*1	0	Adheres without	0
	Pre- treat	HK31W F	0		0	primer*1	0
Resin	ed PET	U292W	×	0	0		0
	Acrylics		×	0	×	0	Δ
	Glass epoxy		×	0	×	0	Δ
	6-nylon		×	0	×	0	×
	PP/PE		×	×	×	×	×
Inorganic	Glass		×	0	×	0	×
	SUS		×	0	×	0	×
Metal	Aluminum		×	0	×	0	×
MELAI	Copper		×	0	×	0	×
	Brass		×	0	×	0	×
Surface treated	NICVAL		×	0	×	0	×



^{*1} When ink adheres without primer, primer may deteriorate adhesion.

^{*} The results above is based on the internal evaluation. The performance is not guaranteed. Even if the substrate is the same type, adhesion may differ depending on its manufacture or brand. It is recommended to test it in advance.

GREENGUARD approved

What is GREENGUARD?

GREENGUARD is a third-party certification for indoor air quality (IAQ) which was started by the GREENGUARD Environmental Institute (GEI) in 2001.GREENGUARD is certified based on the emission measurement test of volatile organic compounds (VOC), which is the world's most stringent standards.

Products that received the GREENGUARD certification are distinguishable from other products through their lower emission of chemicals indoors, and for being eco-friendly. In addition to GREENGUARD certification, Mimaki Engineering's UV inks are certified by a stricter standard called GREENGUARD GOLD.

GREENGUARD/GREENGUARD GOLD certified items

- · LH-100
- LUS-120
- · LUS-150





《Reference》 Advantages of digital printing

Advantages of digital print

Digital print allows to shorten the processes from the receiving design to the production. It enables the quick launch of the new products which matches the market trends. Inkjet print provides various design possibilities with full color and gradation print without the limitation of colors.

Full color

Various design possibilities with full color and gradation print without the limitation of colors.

Quick delivery

Full color print is done in one process without using plates. It enables quick delivery.

Low cost

Lower cost production is achieved by printing without plates and with less production processes.

Simple

Simple process makes any body to be able to print easily. It is simple as that it does not require knowledge of prepress or blending ink.

High added value

Not only the CMYK color prints, but glossy finish, texture print, and embossed effects adds more value to the printed materials.

Small volume production

On-demand and only one production is possible by printing without plates. Variable data printing and custommade production is also possible.

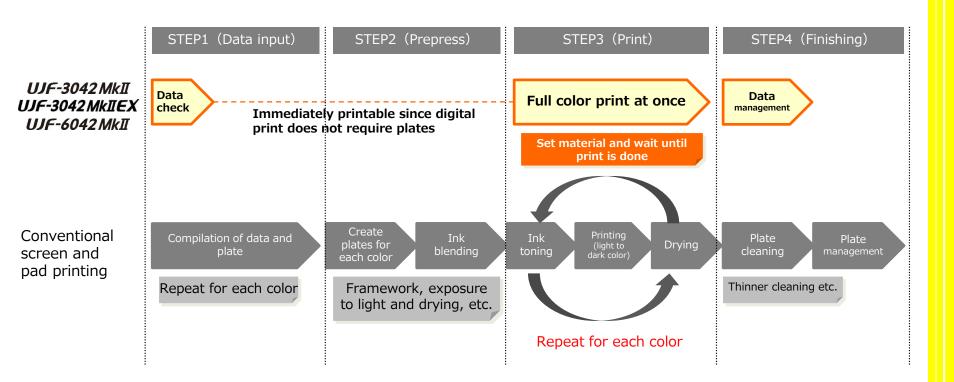
Environmentally friendly

Inkjet printing reduces ink wastes because it ejects ink only to the parts to be printed. It also reduces the process to clean the plates after printing.

《Reference》Workflow of digital printing

Workflow of digital printing

UJF-3042/6042Mk II and UJF-3042Mk II EX allows to do the job in several hours which used to take several days to complete with analog print process.



RasterLink6

RIP software



[Intuitive Operation]



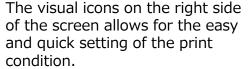


The main information is in one screen. The status of printer, the progress of ripping, the status of job can be checked at a glance. Nesting or composition of job are displayed visually.













Frequently used setting can be registered as "My Favorite". Up to 100 settings can be registered.

Convenient Functions

Jig layout function

Register the jig layout in RasterLink6 and you can place the design data into it.





Register the jig layout

Place the design data

Web Update Function

Web update is available

"Program update" which you can update your RasterLink6, and "Profile download" which you can download the latest profile can be done through the web easily.

Option jig

Kebab MkII Kebab MkII L

Features of Kebab Mk II series

- 1. 360 degrees direct printing on to cylindrical materials
 Customized items can be created by on-demand printing.
- Cylindrical materials 10mm~110mm in diameter can be printed

Printing on wide variety of cylindrical items expands the range of application.

《Specification》

Co	ntonto	Kebab MkII	Kebab MkII L			
Contents						
Part number		OPT-J0432	OPT-J0433			
Supporting mach	nine	UJF-3042Mk II UJF-3042Mk II EX	UJF-6042MkII, UJF-7151 plus			
Rotating angle o	f work	±360° or more (no limitation)				
Rotating method	of work	Roller which touches circumference of work rotates work				
Work shape		Cylindrical work				
Work size	Diameter	10mm∼110mm				
WOIK SIZE	Width	30mm~330mm	30mm~600mm			
Print area	Feed (X) direction	Whole ci	circumference			
Print area	Scan (Y) direction	300mm or less	600mm or less			
Media weight	Smaller diameter	1.5kg				
Media Weight	Bigger diameter	2.0kg or less				
Interface		Connect with the supported printer				
interrace		sing the dedicated connector				
	Available temp		C~35℃			
Installation	Humidity	35∼65% R h				
environment	Guaranteed temp	20°C~25°C (Temperature change : ±10°C/h or less				
	Dust	Equivalent to i	normal office level			
Weights		Approx. 3kg	Approx. 6kg			
Dimension (W x	DxH)	366 × 301 × 50 mm	674 x 301 x 50 mm			
Packing size $(W \times D \times H)$		465 x 385 x 210 mm	775 x 385 x 210 mm			





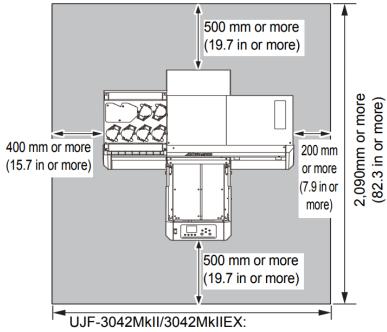


List of option items

Part	Name	Supporting model				Dimensions	Packing size
number		3042Mk I I	3042Mk II EX	6042Mk II	Explanation	Weights	Packing weights
OPT-J0420	Stand	V	V	V	Stand for the printer	824×820×523mm 39kg	946×924×336mm 44.5kg
OPT-J0421	Vacuum table	V	-	-	Vacuum (suction) table for UJF-3042MkII	364×464×45mm 2.3kg	530×430×115mm 3.3kg
OPT-J0414	Ionizer unit30	V	V	-	Anti-static equipment for UJF-3042MkII/EX **Requires technicians' installation **Requires technicians' 1kg		600×150×85mm 1.6kg
OPT-J0415	Ionizer unit60	-	-	~	Anti-static equipment for UJF-6042MkII **Requires technicians' installation	70×690×45mm 1.2kg	780×150×80mm 1.8kg
OPT-J0422	NCU option	V	-	-	Nozzle check unit Requires technicians' installation	28×198×53mm 0.1kg	102×102×236mm 0.3kg
ОРТ-J0423	Status indication lamp unit	V	-	-	2 emergency button and 1 status indication lamp ※Requires technicians' installation	Indication lamp 80×110×133mm 0.2kg Emergency button (per button) 40×40×39mm 0.02kg	165×160×100mm 0.5kg
OPT-J0424	Ventilating fan unit	V	V	V	Ventilating fan which can be install on the back of the printer **Requires technicians' installation	161×172×96mm 0.4kg	210×200×185mm 0.6kg
OPT-J0432	KebabMkII	V	V	-	360 degrees direct printing on cylindrical materials	366×301×50mm	465×385×210mm
OPT-J0433	KebabMkII L	-	-	~	360 degrees direct printing on cylindrical materials	674x301x50mm	775x385x210mm

Packing and installation

Installation condition



1,955 mm or more(77.0 in or more) UJF-6042MkII:

2,265 mm or more(89.2 in or more)

Installation environment

Available temperature : 20~30℃

Humidity: 35∼65%Rh

Guaranteed temperature : 20~25℃ Temperature change : ±10℃/H or less Dust : Equivalent to normal office level

- * The space for PC is required separately.
- * For the maintenance purpose, space of 1,000mm or more is required around the machine.

		Width	Depth	Height	Weight
UJF-3042Mk II	Outside dimension	1,355mm	1,290mm	856mm	135kg
031 -30421/18 II	Packaging size	1,500mm	1,150mm	1,120mm	200kg
UJF-3042Mk II EX	Outside dimension	1,355mm	1,290mm	856mm	135kg
	Packaging size	1,500mm	1,150mm	1,120mm	200kg
UJF-6042Mk II	Outside dimension	1,665mm	1,290mm	856mm	150kg
	Packaging size	1,800mm	1,150mm	1,120mm	215kg

Specification

Contents	UJF-3042MkⅡ	UJF-6042MkII				
Print head	On-demand piezo head					
Ink type		LH-100 / LUS-120 / LUS-150/ PR-200				
Ink colors	C, M, Y, K, W, Cl, Pr	C, M, Y, K, Lc	, Lm, W, Cl, Pr			
Ink supply		250ml, 1L bottle supply				
Print area	X:420mm (16.5inch) / Y:300mm (11.8inch)	X:420mm (16.5inch) / Y:300mm (11.8inch)	X:420mm (16.5inch) / Y:610mm (24inch)			
Max. media thickness		153mm or less				
Max. media weight	5kg or less	5kg or less	8kg or less			
Circulation system	Ink circulation in ink tube and ink tank					
UV device standard service life	*The standard service	Over 5,000 hours* *The standard service life times listed are estimates and do not guarantee the operation.				
Interface		Ethernet / USB2.0				
Noise		5dB or less (FAST-A, Front & Rear & Left & nting: 65dB or less / Discontinuous printin				
Power supply	Sin	gle phase AC100-240V, ±10%, 50/60Hz ±	1Hz			
Dimensions	W:1,355 x D:1,290 x H:856mm	W:1,355 x D:1,290 x H:856mm	W:1,665 x D:1,290 x H:856mm			
Installation area	1,955 x 2,090mm or more	1,955 x 2,090mm or more	2,265 x 2,090mm or more			
Weight	135kg	135kg	150kg			
RIP software		RasterLink6 (bundled)				
Compatible standards	VCCI CLASS A / FCC CLASS A / ETL (UL60950) / CB report CE Marking (EMC, Low Voltage, Machinery) / RoHS / REACH / Energy Star / IEC60825-1					

$\mathbf{FAQ} \textcircled{1}$

	Question	Answer
1	What is the reason why print speed has improved from UJF-3042/6042?	It is because nozzle length of UJF-3042/6042Mk II is longer.
2	Can I print bi-directional?	No. Although UJF-3042/6042Mk $\rm II$ does not have bi-directional print mode, print speed is faster than the bi-directional printer from other manufacture.
3	What are the maximum and minimum ink drop size?	Maximum 22pl and minimum 5pl. White high density mode uses maximum 27pl.
4	What are the advantages of table drive compared to gantry moving?	Table drive improves dot placement accuracy by reducing wobbling during printing.
5	Is ball screw installed?	Yes. It is installed on both UJF-3042/6042Mk II .
6	Are the sizes of print table the same as UJF-3042FX/HG/6042?	Yes, they are.
7	Can I use the jig I made for UJF- 3042FX/HG/6042?	The jig can be usable as long as it is smaller than the print table. The position of tapped holes are the same as UJF-3042FX/HG/6042. If the jig is bigger than the print table, please check in advance if you can use the same jig.
8	What is the maximum table stroke?	Driving stroke is 53mm.
9	Is point load possible on the print table?	No.
10	Can I use vacuum function when I print without table spacer?	Yes, you can.
11	Is suction improved from UJF-3042/6042?	No. The suction is equivalent to UJF-3042/6042.
12	Is ink circulation system the same as the system installed in UJF-3042HG/6042?	No. UJF-3042/6042Mk II circulates ink not only in ink tube but in sub-tank, too.
13	Can UJF-3042/6042MkII automatically detect the height of substrates?	Yes, they can. Place the substrate on the print table and press REMOTE button, then printer automatically adjust the table height.

FAQ2

	Question	Answer
14	What kind of substrates cannot be detected with obstacle sensor?	Substrates with sharp tip or cylindrical substrates with thickness of 4mm or less.
15	Can I use the machine without cover?	No. You cannot use it without cover.
16	Can I change the illuminance of UV-lamp?	Yes. You can change the illuminance on RasterLink6.
17	Is insertion part of inkbottles the same as UJF-7151 plus and JFX200?	Yes. The insertion part is the same.
18	Is it possible to change the inkbottles on the back side from the front side of the printer?	No. You need to be on the back side of the printer to move remove lever.
19	Can I use both 1L and 250ml ink bottles at the same time?	Yes, you can.
20	What are the print modes MAPS4 becomes active?	MAPS4 becomes active in all print modes except for the undercoat mode.
21	Can I print glossy clear in one process?	Yes. Glossy clear can be printed in one process. It requires 2 processes to print CMYK color and glossy clear. (It required 3 processes on UJF-3042FX/HG/6042).
22	Is it possible to print variable data?	Yes. However the RIP software "RasterLink6" does not have a function to create images with variable data.
23	Where can I do the print head maintenance?	You can use the maintenance space on the left side of the machine.
24	What are the options end users can install by themselves?	Kebab Mk II series and suction table can be installed by end users. Other options such as ionizer unit, status indication lamp unit, ventilating fan unit, and NCU unit requires technicians to install.
25	Does option stand have casters or adjusters?	It only has casters. Stoppers for fixing are also attached.

FAQ3

	Question	Answer
26	How can I install option suction table?	Detach the standard table and place suction table.
27	What does ventilating fun look like?	It is the same as the fan installed on the back side of JV300. It does not have deodorizing function.
28	What are the differences between Kebab for UJF-3042HG/6042 and the new Kebab Mk ${ m I\!I}$?	Kebab Mk II is for table moving machines, or UJF-3042/6042Mk II, UJF-3042Mk II EX and 7151 plus. The basic functions are the same as Kebab. Kebab MkII L is 60cm in width.
29	Can I use [CMYKWW] ink configuration on UJF-6042Mk II?	No you cannot. UJF-6042Mk II requires to have 8 inks installed.
30	How machine is packed in the box?	The machine is packed with control panel folded, and the rear cover and the cover for waste ink tank detached.

UJF-3042 MKII UJF-6042 MKII UJF-3042 MKII EX

Print Guide

Table of contents:

- 1. List of available print mode
- About MAPS
- 3. Color matching setting on RasterLink6
- 4. Things to be aware of when printing white and color in 2layers
- 5. Things to be aware of when printing clear
- 6. Things to be aware of when printing primer
- 7. Things to be aware of when printing white
- 8. Higher-density white print
- 9. Undercoat printing



Print Guide (1)

1. List of available print mode

 \bigcirc : Available / \triangle : Available (Not recommended) / \times : Not available

Pri	nt condition		Print method							
Print mode	Resolution	Pass	Color only	White only	Clear only (Matte)	Clear only (Gloss)	Primer only	Color + White	Color + Clear(※4)	Color + Primer
Undercoat*6	600x300	4pass	× (*1)	× (*1)	○(※3)	× (*1)	○(※3)	× (*1)	× (*1)	× (*1)
		8pass	0	0	0	× (*1)	0	0	0	0
Draft	600x600	10pass	0	0	0	Δ	0	0	0	0
		16pass	× (*1)	× (*1)	× (*1)	0	× (*1)	× (*1)	× (*1)	× (*1)
High speed	600x900	12pass	0	0	0	× (*1)	0	0	0	0
riigii speed	000,300	16pass	0	0	0	× (*1)	0	0	0	0
Standard	600x1200	16pass	0	0	0	× (*1)	0	0	0	0
Standard 000	000/1200	20pass	0	0	0	× (*1)	0	0	0	0
High quality 1	1200×1200	16pass	0	0	0	× (*1)	0	0	0	0
High quality	1200x1200	20pass	0	0	0	× (*1)	0	0	0	0

[:] Default print mode

2. About MAPS

The setting of MAPS4 can be switched between "AUTO" or "MANUAL" on the printer.

To change the setting: "Menu" > "Setting" > "MAPS4"

AUTO	Uses the optimum gradation pattern depending on the print condition (Ink type, resolution, profile, etc) Normally, please print with "AUTO" setting.
MANUAL	When there is a problem with the image quality of "AUTO" setting, adjust the gradation gradient of MAPS by changing the "smoothing level" in "MANUAL" setting.

MAPS4 does not become active with glossy clear when printing in 600x900 12pass.



^{*1} It causes print mode error on the printer.

^{*2} Not recommended for solid clear since MAPS4 does not become active.

^{*3} Recommended only for undercoat printing.

^{*4} Glossy clear cannot be printed simultaneously with color.

Print Guide (2)

3. Color matching setting on RasterLink6

(Display image of (Mimaki_Expand_Color) setting)

 When printing with UJF-3042/6042MkII, UJF-3042Mk II EX the color matching setting on RasterLink6, print condition is set to "(Mimaki_Expand_Color)" as default. Please use with this setting normally.

Illustration Color matching method : Relative **Image** Color Matching Method : Relative

Input profile(ICC) RGB : AdobeRGB1998 / CMYK : MimakiHiContrast*

 When printing thin lines or small fonts, it is recommended to enable "Pure K" for both Illustration and Image on the color matching setting

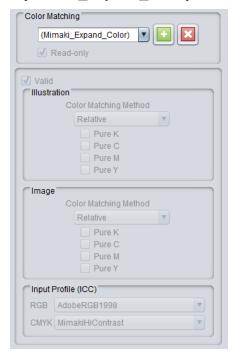
To create optional color matching setting:

"RasterLink6" > "Print Condition " > "Color Matching"

> Delete "(Mimaki_Expand_Color)" and input optional name

> Click □

> Change the setting



4. Things to be aware of when printing white and CMYK in 2layers

When printing on thin medias, the media may be curved due to the contraction of the ink.
 If the print head touches the curved media during printing, it may cause nozzle clogging or other malfunctions of the print head.

If media curves during printing, try fixing the edge and the middle part of the media with double-sided tape.

Print Guide (3)

5. Things to be aware of when printing clear

(Regarding the procedures for clear printing, please refer to "UJF-3042/6042MkII Clear ink Print Guide" on Mimaki Website.)

- Glossy clear is not available in resolution other than 600x600dpi.
- Glossy clear cannot be printed simultaneously with color. Please use 600x600 10/16pass for printing glossy clear.
- When printing clear, there are recommended ink density depending on the substrate and the resolution. Clear printings become better quality by using the optimum density depending on the print condition.

(Reference)

Pur	pose	Print con	dition	Glossy finish			Matte finish		
Normal printing	Undercoat printing	Resolution	Pass	White PET	Lexan	Acrylic	Coated boards	Any media type	Profile
×	0	600x300	4pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	For printing undercoat clear*2
			8pass	×(*1)	×(*1)	×(*1)	×(*1)	90%	
0	×	600×600	10pass	100%	100%	100%	100%	90%	
			16pass	100%	100%	100%	100%	90%	
0	×	600x900	12pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	
	^	000x300	16pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	For printing color
0	×	600x1200	16pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	
	^	000x1200	20pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	
0	×	× 1200×1200	16pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	
	^	1200/1200	20pass	×(*1)	×(*1)	×(*1)	×(*1)	80%	

^{*1} It causes print mode error on the printer.

[Regarding the glossy clear print...]

[Regarding the matte clear print...]



^{*2} Undercoat mode is available only when LUS-120 ink is installed.

^{*}If the density of clear ink is too high

[•] Regularly spaced stripes may appear on the printed surface. Please print with lower density.

^{*}If the density of clear ink is too high

[·] unintentional stripes or gloss may occur. Please print with lower density.

Print Guide (4)

6. Things to be aware of when printing primer

- When printing primer, there are recommended ink density.
 - 1. When printing with RasterLink6…

Print with the setting of "Primer: 100%"

With this setting, density will be automatically adjusted to the recommended percentage.

- * If the density is set other than 100%, the set percentage of recommended density will be printed. e.g. If you set "Primer: 50%" on RasterLink6 when printing in LH-100 600x600 dpi, the actual printing density is 20%.
- * When printing with the profiles created by the users, and if printing with resolutions other than [600x600dpi], [600x900dpi], and [1200x1200dpi], please refer to "2. When printing with RIP software other than RasterLink6" and set the recommended density manually.
- 2. When printing with RIP software other than RasterLink6…

Please set the following recommended density manually:

Resolution	Recommended density				
Resolution	Combination with LH-100	Combination with LUS-120			
600x300	× (*1)	60%			
600x600	40%	30%			
600x900	30%	30%			
600x1200	30%	30%			
1200×1200	30%	30%			

- *1 It causes print mode error on the printer.
- * The recommended density is the same for all kinds of media.
- * If you do not print with the recommended density, it may causes the following problems.
 - ①If density of primer is too high
 - Hardness of the ink film may decline.
 Under some conditions, the film may be scratched off with nails.
 - The ink film may breaks when it is exposed to heating environment.

2 If density of primer is too low

- · Adhesion may not change or may becomes worse compare to printing without primer.
- The ink film may breaks when it is exposed to heating environment.

Print Guide (5)

7. Things to be aware of when printing white

- When printing white, there are recommended ink density.
 - 1. When printing with RasterLink6…

Check "Print white in recommended density" and print white.

With this setting, density will be automatically adjusted to the recommended percentage.

- * If the density is set other than 100%, the set percentage of recommended density will be printed. e.g. If you set "White: 50%" on RasterLink6 when printing in 1200x1200 dpi, the actual printing density is 40%.
- * When printing with the profiles created by the users, and if printing with resolutions other than [600x600dpi], [600x900dpi], [600x1200dpi], and [1200x1200dpi], please refer to "2. When printing with RIP software other than RasterLink6" and set the recommended density manually.
- 2. When printing with RIP software other than RasterLink6...

Please set the following recommended density manually:

Resolution	Recommended density				
Resolution	Single white	Double white			
600x300	× (*1)	× (*1)			
600x600	100%	100%			
600x900	100%	100%			
600x1200	100%	100%			
1200×1200	80%	70%			

^{*1} It causes print mode error on the printer.

^{*} The recommended density is the same for all kinds of media.

^{* &}quot;Single white" and "Double white" means the number of white ink included in the ink configuration.

Print Guide (6)

8. Higher-density white print

 A function to print higher-density white is available with the following print modes: [Print modes]

Resolution	High density printing				
Resolution	Single white	Double white			
600x300	× (*1)	× (*1)			
600x600	0	0			
600x900	0	0			
600x1200	0	0			
1200x1200	0	0			

^{*1} It causes print mode error on the printer.

(Display image)

•	To activate higher-density white print :
	"RasterLink6"

> "Print condition !!"

> "Print Quality" tab

> Check "□ Printing of the White-ink at

higher density"

(Reference) To lower the white density:

"RasterLink6" > "Print condition [" > "Color adjust" tab

→ [Color adjustment set] Input optional name > Click 🖸

→[Density] "Special color" > "White" > Lower the value (e.g., When you wish to print 90% density, set "-10.")



^{*}An error will occur when it is set with the print modes other than the ones shown above.

^{*}There are different methods available to change the density.

Print Guide (7)

9. Undercoat printing-1

 When printing directly onto the substrates listed on the right with LUS-120, ink may gets blurred.

By printing undercoat*1 with "primer" or "clear," thin lines and small fonts can be printed without being blurry.

[Comparison of image quality (Set LH-100 as a standard)]

Print data	LUS-120 w/o undercoat	LUS-120 w/ undercoat	LH-100 (Standard)
Lines & fonts	×	0	•
Pictures	•	0	•

Substrates recommended to have undercoat*2					
General acrylics					
• Acrylite EX • Acrylite L • Sumipex					

Plexiglas

*Image quality:

It is recommended to print undercoat especially when printing thin lines and small fonts.

[Print speed] *Print speed when printing undercoat in undercoat mode, and print color + white in each resolution

Print mode		3042MkII/EX		6042MkII	
		Speed[m/h]	Print time per table	Speed[m³/h]	Print time per table
Draft	600x600, 8p, Uni, Normal	1.44	5m14s	2.14	7m11s
High speed	600x900, 12p, Uni, Normal	1.11	6m50s	1.62	9m31s
Standard	600x1200, 16p, Uni, Normal	0.90	8m22s	1.30	11m49s
High quality	1200x1200, 16p, Uni, Normal	0.60	12m31s	0.85	18m00s

^{*2} Undercoat printing may prevent images to get blurred even on the different substrates other than listed here.



^{*1} Refer to "5. Things to be aware of when printing clear" and "6. Things to be aware of when printing primer" for recommended density of clear and primer for undercoat printing.

Color tone may changes because of undercoat. It is recommended to test it in advance.

Print Guide (8)

9. Undercoat printing-2

To set primer undercoat printing: (When printing 1. "Primer" > 2. "Color + White")

(Image of primer plate creation)

1 Create primer plate

Select the date (Color plate) > " Special plate" > Set as the followings:

[1] Ink : Primer : 100% [2] Primer

[3] Created area: Select either area*1

→Click "create"

→ Select the created primer plate

→"Print condition \(\bigcirc \)" > "Print quality" tab > Set as the followings:

Media : For printing undercoat primer

Resolution: 600x300 VD : 4 (Default) Pass

2 Create "Color + White" composed print job

Select the data (Color plate) > "Print condition (" > "Print quality" tab > Set optional print conditions

> " Special plate" > Set as the followings:

[1] Ink : White

[2] White : Set optional density

[3] Created area: Select either area*1

[4] Execution : Check "

Composite automatically," select "Top"

>Click "create"

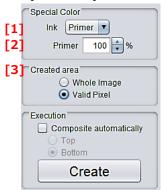
3 Print primer plate

Select primer plate created in ① > " Execution" > Select "RIP and Print*2" > Click "Start"

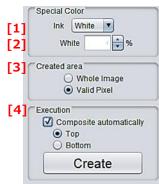
Print "Color + White" composed print job

Select composed job created in ② > " Execution" > Select "RIP and Print*2" > Click "Start"

- *1 Select the same area when creating primer plate and white plate.
- *2 Select "RIP and Print." If you select different print conditions, it may cause gap between different plates.



(Image of white plate creation)





Print Guide (9)

9. Undercoat printing-3

To set clear undercoat printing: (When printing 1. "Clear" > 2. "Color + White")

(Image of clear plate creation)

Ink Clear ▼

Whole Image

Composite automatically

Bottom

Special Color

[3] Created area

4 Execution

White

Top

O Bottom

Valid Pixel

70 🛊 %

Special Color

Created area

Execution |

Г21

[21

1 Create clear plate

Select the date (Color plate) > " Special plate" > Set as the followings:

[1] Ink : Clear [2] Primer : 70%

[3] Created area: Select either area*1

→Click "create"

→ Select the created primer plate

 \rightarrow "Print condition \bigcirc " > "Print quality" tab > Set as the followings:

Media : For printing undercoat clear

Resolution: 600x300 VD Pass: 4 (Default)

2 Create "Color + White" composed print job

(Image of white plate creation)

Whole Image

✓ Composite automatically

Create

Valid Pixel

\$ %

Ink White

Create

Select the data (Color plate) > "Print condition (" > "Print quality" tab

> Set optional print conditions

> " Special plate" > Set as the followings:

[1] Ink : White

[2] White : Set optional density

[3] Created area: Select either area*1

[4] Execution : Check "□Composite automatically," select "Top"

>Click "create"

3 Print primer plate

Select primer plate created in ① > " Execution" > Select "RIP and Print*2" > Click "Start"

Print "Color + White" composed print job

Select composed job created in ② > " Execution" > Select "RIP and Print*2" > Click "Start"

- *1 Select the same area when creating clear plate and white plate.
- *2 Select "RIP and Print." If you select different print conditions, it may cause gap between different plates.

