

HITACHI
Inspire the Next

Ink Jet Printer
UX Series

THE WIDE WORLD



<http://www.hitachi-ies.co.jp/english/products/ijp>

The world leader in coding

Hitachi, which manufactured the first Japanese industrial inkjet printer in 1975, has boasted of a high achievement worldwide ever since, not to mention the Japanese market, as a reliable and leading brand of coding.

Hitachi industrial IJ printer UX Series is a global model with highly evolved "Reliability", "Simplicity", and even "Eco-friendly" performance. We will change the coding scene of the world.

**Higher functionality and easier installation
for a variety of printing needs.
Its evolution has also realized ease of
use and maintainability.**

Hitachi industrial IJ printers are high-speed printers adopting a non-contact type of printing method, in which the drops of ink fly in the air. It can print on a variety of products manufactured on production lines, which are made of metals, plastics, films, papers, etc. Its speed, flexibility, reliability, and durability are really impressive. Durability in harsh environment and ease of use have also been greatly improved. We are bringing excitement to the coding and marking industry.



RELIABILITY

信

High reliability,
and reassured maintenance
and service networks

ECOLOGY

環

Environmentally friendly while
realizing a low running cost

USABILITY

操

Simple touch panel operation and
maintainability

THE WIDE WORLD

ECOLOGY

Environmentally friendly
while realizing
a low running cost

環



Hitachi original
“Makeup fluid consumption reduction system”
has Significantly-reduced running cost.

The ink recovery control and device temperature control provided by the new technology of “Makeup fluid consumption reduction system” suppress the amount of makeup vaporized and achieve industry-leading levels of makeup consumption.

Reduction of makeup fluid consumption

UX-E



UX-B, UX-D

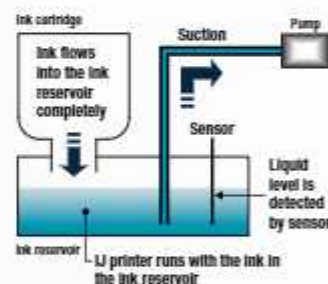


* With 1067K ink at 20°C.



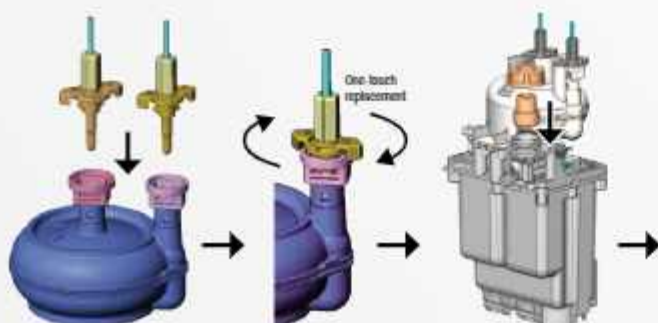
Eco-friendly because the ink and the makeup fluid in the cartridge can be consumed right up to the last drop.

It is not necessary to stop the production line to replace the cartridges. An eco-system of a simple cartridge-type bottle can be replaced after the ink or makeup fluid is completely consumed and is also easily disposed of.



Each part can be replaced separately, and filter replacement is also easy.

The LJ printer is so designed that the minimal part or module can be replaced rather than replacing the whole unit. The ink filter can also be removed and replaced easily without any tools just by rotating the joint. It's a one-touch operation.



Feature [2]

RELIABILITY

High reliability, and
reassured maintenance
and service networks

信



RFID function to prevent installing the wrong cartridge

IC tags are adopted for the ink and makeup fluid cartridges. Installation of the wrong cartridge can be prevented by simply passing the cartridges over the main unit which is equipped with RFID* (Radio Frequency Identification) function. A message appears on the screen if the wrong cartridge is scanned.

* Some geographic areas are excluded.

Hitachi Industrial Equipment Systems Co., Ltd. declares that the IC tag reader is in compliance with the essential requirements and other relevant provisions of the FCC Part15 subpart C, EN 301 489-1/-3, EN 300 330-1/-2.



Designed for harsh environments

The stainless steel cabinet offers IP65 and allows a wash-down with pressured water and industrial detergent, to meet any environment and hygiene requests. The UX Series with IP65 protection is the ideal choice for applications in the meat and dairy sectors.



Automatic nozzle cleaning / Nozzle backwash

Automatic cleaning starts by one press of a button and there is no need to wait for its completion since the power turns off automatically when it is finished. Even if the nozzle gets clogged, it can be easily recovered by the nozzle backwash function that is opposite of the normal ink ejection, in which the fluid is sucked through the nozzle.

■Automatic nozzle cleaning



Press [STOP]



Automatic cleaning starts and then the power turns off automatically when cleaning completes.

■Operation screen of nozzle backwash



Made in Japan

Hitachi industrial IJ printers are manufactured with the know-how and technology that have been accumulated since 1975 in Hitachi City where Hitachi was first founded.

After production, all printers have to pass Hitachi's strict quality management before shipment. We provide quality products to our customers worldwide.



USABILITY

Simple touch panel
operation and
maintainability

操



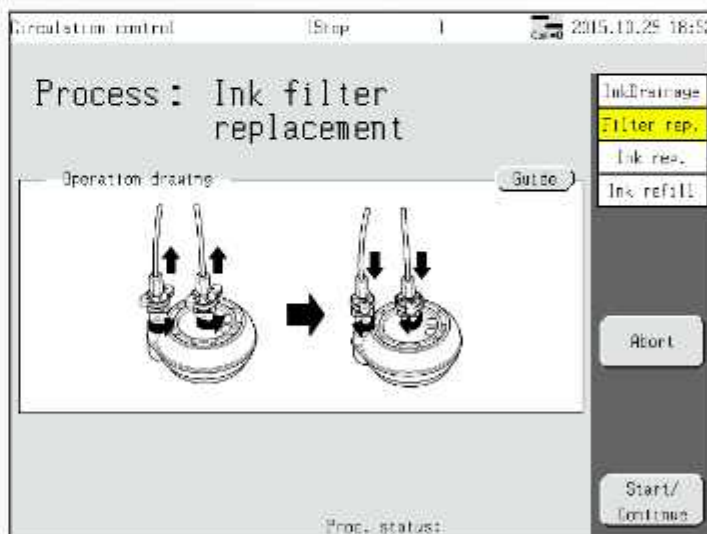
Totally-new user interface!

Intuitive operations with a new readily-understandable screen design is now adopted. Most of the operations can be completed on one screen with a simplified and well-arranged design. Complicated operations are not required to obtain the necessary information thereby improving usability.



Troubleshooting and maintenance guides using plain illustrations

The necessary operations will be displayed on the screen using illustrations when the ink filter needs replacement or when troubleshooting or maintenance is needed. Comprehensive illustrations help to maintain the quality.



IC Card* with RFID function

With IC cards, login information and print data can be managed. * Optional

User login

By scanning IC card, only the registered user can log-in and each user operation can also be limited. It prevents any incorrect operation.

Print data selection

By scanning IC card, the registered print data can be accurately called up. It prevents the incorrect data from being called up which may happen with manual operation.



* Use of IC card (RFID function) requires Radio Law approval in each country.



Enhanced network functionality by improving compatibility with the host system

Configuration of an IoT* system can be smoothly realized using simple wiring because of the standard Ethernet feature and open network compatibility. By collectively managing multiple devices from the host system, the information gathering and operations become more efficient.

* Internet of Things

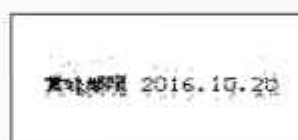


Note: UX-B is excluded.

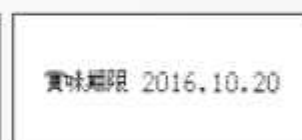


Ink conditioning management to maintain print quality

By monitoring both the ink viscosity and the ink consumption, the ink viscosity is always kept in the best condition.



Print sample without ink conditioning



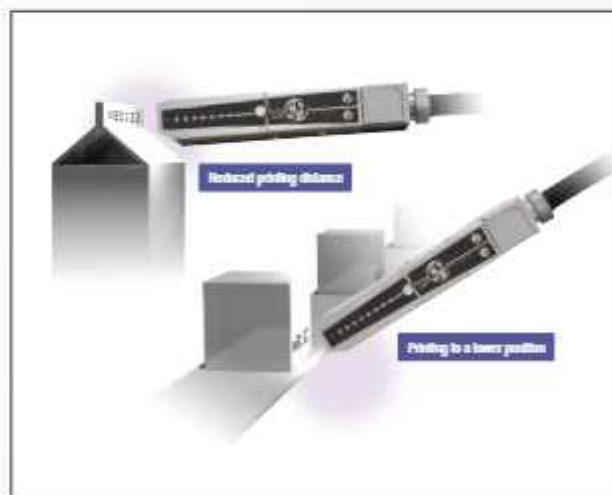
Print sample with ink conditioning



Excellent printhead shape

Tapered shape at the tip of the printhead reduces the distance between the work and the printhead. Printing to the lower position is now made possible. The printhead with anti-corrosion plating keeps working in severe environment.

* Corresponding models: For small characters and high-speed printing



New printing technology, "6-line print" compatible for a wider variety of needs

6-line print from one printhead is made possible.

Even with multiple print lines, Hitachi original interlaced-print-control system makes each printed character appear clearly.

For single-line high-speed printing, its print quality is improved with the new print control system.

* Corresponding models: For small characters



Standard print samples (Approx. full scale)

Small characters (65μm)

Font (Horizontal & Vertical)		UX-B160W						UX-E160W UX-D160W	
UX-B160W	5x5	LINE	0123456789ABCDEF6H	LINE	012345678	LINE	012345678 ABCDEFGHI JKLMNOPQR	LINE	012345678 ABCDEFGHI JKLMNOPQR
	5x7	LINE	0123456789ABCD 0123456	LINE	012345678 ABCDEFGHI	LINE	012345678 ABCDEFGHI JKLMNOPQR	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZA
	7x10	LINE	0123456789 012345	LINE	01234567 ABCDEFGH	LINE	0123456789012345678 ABCDEFGHIJKL MNOPQRST UVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
	10x12	LINE	0123456789ABCD 0123456789	LINE	01234567890 ABCDEFGHIJK	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
	12x16	LINE	0123456789ABC アイウエオカキクケコ 0123456 01	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
	18x24	LINE	0123456789 0123456ABC	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
UX-E160W UX-D160W	24x32	LINE	0123456789ABCDEF 012345	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
	30x40	LINE	012345ABCDEF	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ
	36x48	LINE	012345ABCD	LINE	01234567890 ABCDEFGHIJK	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ	LINE	012345678 ABCDEFGHI JKLMNOPQR STUVWXYZ

Print samples



■ High-speed printing (55μm)

Font (Horizontal x Vertical)		UX-D150W
5x7	1LINE	0123456789ABCDEFGHIJKLMN
	2LINE	0123456789ABCDEFGHIJKLMN ABCDEFGHIJKLMN OPQRSTUVWXYZ
	3LINE	0123456789ABCDEFGHIJKLMN ABCDEFGHIJKLMN OPQRSTUVWXYZ 0123456789ABCDEFGHIJKLMN
	4LINE	0123456789ABCDEFGHIJKLMN ABCDEFGHIJKLMN OPQRSTUVWXYZ 0123456789ABCDEFGHIJKLMN ABCDEFGHIJKLMN OPQRSTUVWXYZ

■ Print samples



■ Larger Small-size characters (100μm)

Font (Horizontal x Vertical)		UX-D110W	
		Standard	Bold
18x24		01A	01A
		01A	01A
24x32		01A	01A
		01A	01A

■ Print samples



■ Micro characters (40μm)

Font (Horizontal x Vertical)		UX-D140W						
5x5	1LINE	0123456789	2LINE	0123456789 KLMNOPQRST	3LINE	0123456789 IJKLMNOPQR 0123456789	4LINE	0123456789 IJKLMNOPQR 0123456789 IJKLMNOPQR
12x16	1LINE	01234ABCDE アイウエオ					2LINE	01234 ABCDE

■ Print samples



Standard Specification

Item		Small characters		
		UX-B160W	UX-D160W	UX-E160W
Nozzle size		65µm		
Max. print line number		Up to 3 lines	Up to 6 lines	Up to 6 lines
Maximum number of print characters		Up to 240 characters	Up to 240 characters (Option: Up to 1,000 characters)	Up to 1,000 characters
Font (Horizontal × Vertical)	4 × 5	✓	✓	✓
	5 × 5	✓	✓	✓
	5 × 7(8), 9 × 7(8)	✓	✓	✓
	7 × 10	✓	✓	✓
	11 × 11	✓ (Chinese only)	✓ (Chinese only)	✓ (Chinese only)
	10 × 12	✓	✓	✓
	12 × 16	✓	✓	✓
	18 × 24	✓	✓	✓
	24 × 32	—	✓	✓
	30 × 40	—	✓	✓
36 × 48	—	✓	✓	
Character height		2 - 10 mm		
Display & input device		WYSIWYG design Display: TFT LCD (10.4" color), backlight provided Input device: Touch panel, input sound provided		
Screen language (2 languages selectable)		English, Chinese, Korean, Thai, Vietnamese, German, French, Dutch, Italian, Spanish, Portuguese, Swedish, Danish, Greek, Russian, Czech, Polish, Arabic, Serbian, Turkish, Hungarian, Bulgarian, Catalan, Romanian, Finnish, Norwegian, Slovenian		
Maximum print rate (Characters per second) (Font 5x5, space 1, 1 line)		Up to 1,148 (Option: Up to 1,281 *)	Up to 1,148 (Option: Up to 2,563 *)	Up to 2,296 (Option: Up to 2,563 *)
Standard characters		Alphanumeric (A-Z, a-z, 0-9), symbols (27) and space: Total 90		
User pattern		50 patterns each for dot matrix	200 patterns each for dot matrix (50 patterns for 30×40 and 36×48 fonts)	
Print functions		Calendar, Count, Font mixture, Password		
Barcode printing		—	code39, ITF, NW-7, EAN-13, EAN-8, UPC-A, UPC-E, code128/EAN-128, GS-1 DataBar	
2D code printing		—	Data Matrix (Alphabet: 49 characters/Numerals: 98 characters), QR, Micro QR code	
Message storage capacity		150 messages	300 messages (Option: Up to 2,000 messages (Depends on data content))	2,000 messages (Depends on data content)
Input signal		Print target detection Rotary encoder pulse (NPN/PNP Selectable)	Print target detection, Printing stop, Rotary encoder pulse, Reciprocal printing, Remote control (Run, Stop, High-voltage ON/OFF, Reset), (NPN/PNP Selectable)	
Output signal		Print ready, Fault, Warning (NPN Only)	Print in progress or Print complete, Online (NPN/PNP Selectable), Print ready, Fault, Warning (NPN Only)	
Data interface		Option (RS-232C at baud rates selectable up to 115,200bps)	RS-232C at baud rates selectable up to 115,200bps	
Ethernet (Modbus communication)		IEEE802.3 , 100BASE-T		
External memory		USB for user data storage		
Printhead cable length / angle		4m (in-line/90 degrees)		
Operating temperature range		0-50°C (106°F/106°F)		
Operating humidity range		30-90% RH (no condensation)		
Power supply (Automatic voltage selection)		AC100-120/220-240V±10% 50/60Hz 120VA		
Approval		CE, UL, cUL, C-Tick, FCC, ICES		CE, C-Tick
Dimensions (Width x Depth x Height)		400 x 320 x 527 mm		
International protection		IP55	IP65	
Approximate weight		27kg		

*1 Ink types and temperature are limited.



UX-B160W



UX-D160W



UX-E160W

Item		High-speed printing	Larger Small-size Characters	Micro Characters
		UX-D150W	UX-D110W	UX-D140W
Nozzle size		55µm	100µm	40µm
Max. print line number			Up to 4 lines	
Maximum number of print characters			Up to 1,000 characters	
Font (Horizontal x Vertical)	4 × 5		✓	
	5 × 5		✓	
	5 × 7(8), 9 × 7(8)		✓	
	7 × 10		✓	
	11 × 11	—		✓ (Chinese only)
	12 × 16		✓	
	18 × 24	✓		✓
24 × 32		—	✓	
Character height		2-8mm	3-15mm	1-5mm
Display & input device		WYSIWYG design Display: TFT LCD (10.4" color), backlight provided Input device: touch panel, input sound provided		
Screen language (2 languages selectable)		English, Chinese, Korean, Thai, Vietnamese, German, French, Dutch, Italian, Spanish, Portuguese, Swedish, Danish, Greek, Russian, Czech, Polish, Arabic, Serbian, Turkish, Hungarian, Bulgarian, Catalan, Romanian, Finnish, Norwegian, Slovenian		
Maximum print rate (Characters per second) (Font 5x5, space 1, 1 line)		Up to 3,173	Up to 468	Up to 3,030
Standard characters		Alphanumeric (A-Z, a-z, 0-9), symbols (27) and space: Total 90		
User pattern		200 patterns each for dot matrix		
Print functions		Calendar, Count, Font mixture, Password		
Barcode printing		code39, ITF, NW-7, EAN-13, EAN-8, UPC-A, UPC-E, code128/EAN-128, GS-1 DataBar		
2D code printing		Data Matrix (Alphabet: 49 characters/Numerals: 98 characters), QR code ² , Micro QR code		
Message storage capacity		300 messages [Option : Up to 2,000 messages (Depends on data content)]		
Input signal		Print target detection, Printing stop, Rotary encoder pulse, Reciprocatave printing, Remote control (Run, Stop, High-voltage ON/OFF, Reset), (NPN/PNP Selectable)		
Output signal		Print in progress or Print complete, Online (NPN/PNP Selectable), Print ready, Fault, Warning (NPN Only)		
Data interface		RS-232C at baud rates selectable up to 115,200bps		
Ethernet (Modbus communication)		IEEE802.3 , 100BASE-T		
External memory		USB for user data storage		
Printhead cable length / angle		4m (in-line/90 degrees)		
Operating temperature range		0-40°C (1067K Ink)	0-35°C (1067K Ink)	
Operating humidity range		30-90% RH (no condensation)		
Power supply (Automatic voltage selection)		AC100-120/220-240V±10% 50/60Hz 120VA		
Approval		CE, UL, cUL, C-Tick, FCC, ICES		
Dimensions (Width x Depth x Height)		400 x 320 x 527 mm		
Interruption protection		IP65		
Approximate weight		27Kg		

² Please consult your nearest sales representative when "18x24 font" or "QR code" is required with UX-D for High-speed printing.



UX-D150W



UX-D110W



UX-D140W

Ink lineup

Specialty printing is possible with wide array of ink types.

Highly adhesive

Metal Paper Plastic

Suitable for containers made from PP (polypropylene) or PE, or two-piece can, three-piece can in the industries of food, medicine, cosmetics, etc.



1072K, 1028K, 1088K, 1114K

Quick-drying

Film

Suitable for food packaging film and applications where quick-drying is required such as pillow packaging machines.

Time (s)	2086K	Former model
0.3	19.12.16	19.12.16
0.5	19.12.16	19.12.16
1.0	19.12.16	19.12.16

2086K

Ethanol ink

Metal Paper Plastic

Suitable for applications where MEK-based ink is not acceptable such as food, pharmaceutical and cosmetics.



3112K

Solvent resistant

Film Plastic

Suitable for food packaging and processing in which containers are cleaned by ethanol. This ink is resistant to wiping with ethanol in the sterilization process.

Status	1087K	Former model
Print after printing	2019.8.18 QPS	2019.8.18 QPS
Wiping with alcohol	▼	▼
After being wiped with alcohol	2019.8.18 QPS	2019.8.18 QPS

1087K

Ultraviolet luminescence

Suitable for manufacturing control, etc.
This ink emits blue light when irradiated by UV light.



1092F, 1063F

UV curing

Electronic parts

Suitable for PCB and electronic parts.
Curing by UV light makes the printed ink resistant to oils and solvents.



1065K

Color ink

Metal Paper Plastic

Suitable to identify the work printed.



1027R, 1085B, 1095B, 1027G

Alkali-soluble Metal Paper Glass 1026K

Transfer-resistant Plastic Steel plate 1033K 1119K

Flexibility Plastic 1061K Condensation-resistant Film Glass 1062K

*1 Regarding ink for each model, please contact your nearest sales representative.

*2 For SDS, please download it from our website or contact your nearest sales representative.



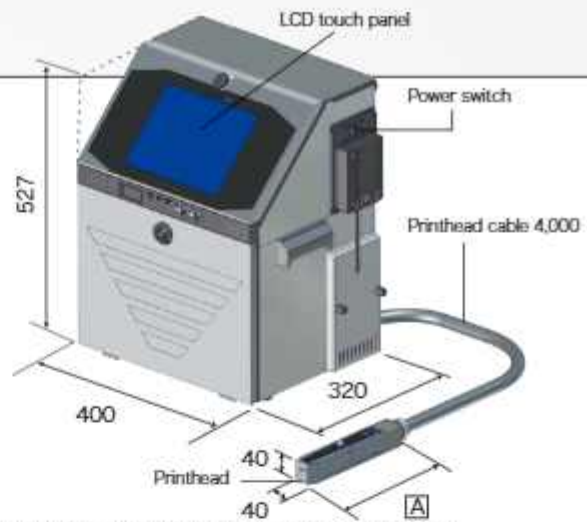
●Download SDS from here

Dimensions of main unit (Unit: mm)

Main unit

A Dimension of each model

Model	Dimension (mm)
For small characters	235
For high-speed printing	235
For larger small-size characters	243
For micro characters	219



Note: Main unit dimensions do not include any projections.

Software options

IJ printer features can be extended with a range of software options.

■ Linking with Vision system

- Inspection item on Vision system changes corresponding to the print item on the IJ printer.
- Vision system corresponds to the change of IJ printer-printed characters.
- Clocks can be synchronized.
- Vision system receives the print content output each time when the IJ printer completes printing, which can be set as Vision system's inspection characters.



■ Barcode reader connection function

Setting print content

Barcode content read by the barcode reader is transmitted as "Character strings" and set as print content.

Calling up print data

Barcode content read by the barcode reader is treated as "Call up code" and the print data corresponding to the "Call up code" will be called up.

■ Special communication functions and External signal functions

Function	Detail
Print content output	Outputs "Print content" to an external device via serial communication when the printer receives an "Inquiry about print content" from an external device or right after completion of printing.
Print completion code output	Outputs "Print completion code" to an external device right after completion of printing.
Status output	Outputs IJ printer status to an external device when operation status changes or an "Inquiry about status" from an external device is received.
External signal count	Update count according to the external signal.

Function	Detail
Print content switching	Print content, which is sent via communication and stored temporarily, will be printed at the time of external signal input.
Output on calendar update	Outputs signal when the print content is updated by the calendar.
External signal reset	Print content of the count digit is set to a reset value at the input of an external signal.
Calling up print data	Calls up registered print data by external signal.
Output notifying completion of signal input	When an external signal of the count, reset, print content switching or print data call up is input, signal will be output.

Related products

Vision system

Good partner to improve printing reliability

Instantly checks for print errors of date, serial number, etc. Hitachi original cross check inspection method (Adjustable matching method) is adopted so that the recognition close to the human eyes is made possible.



Europe

Germany, Switzerland, Austria, France, UK, Italy, Spain, Portugal, Netherlands, Belgium, Luxembourg, Sweden, Czech Republic, Slovak Republic, Ukraine, Greece, Turkey, Cyprus, Poland, Bulgaria, Moldova, Serbia, Montenegro, Hungary, Belarus, Estonia, Latvia, Lithuania, Romania, Russia, Macedonia, etc.

- ⑦ Hitachi Europe GmbH
Dusseldorf

China/Taiwan

- ⑤ Hitachi Industrial Equipment Systems
(China) Co., Ltd.
⑥ Taiwan Hitachi Asia Pacific Co., Ltd.
Taipei, Taiwan

Africa

Nigeria, Cameroon, Congo, etc.

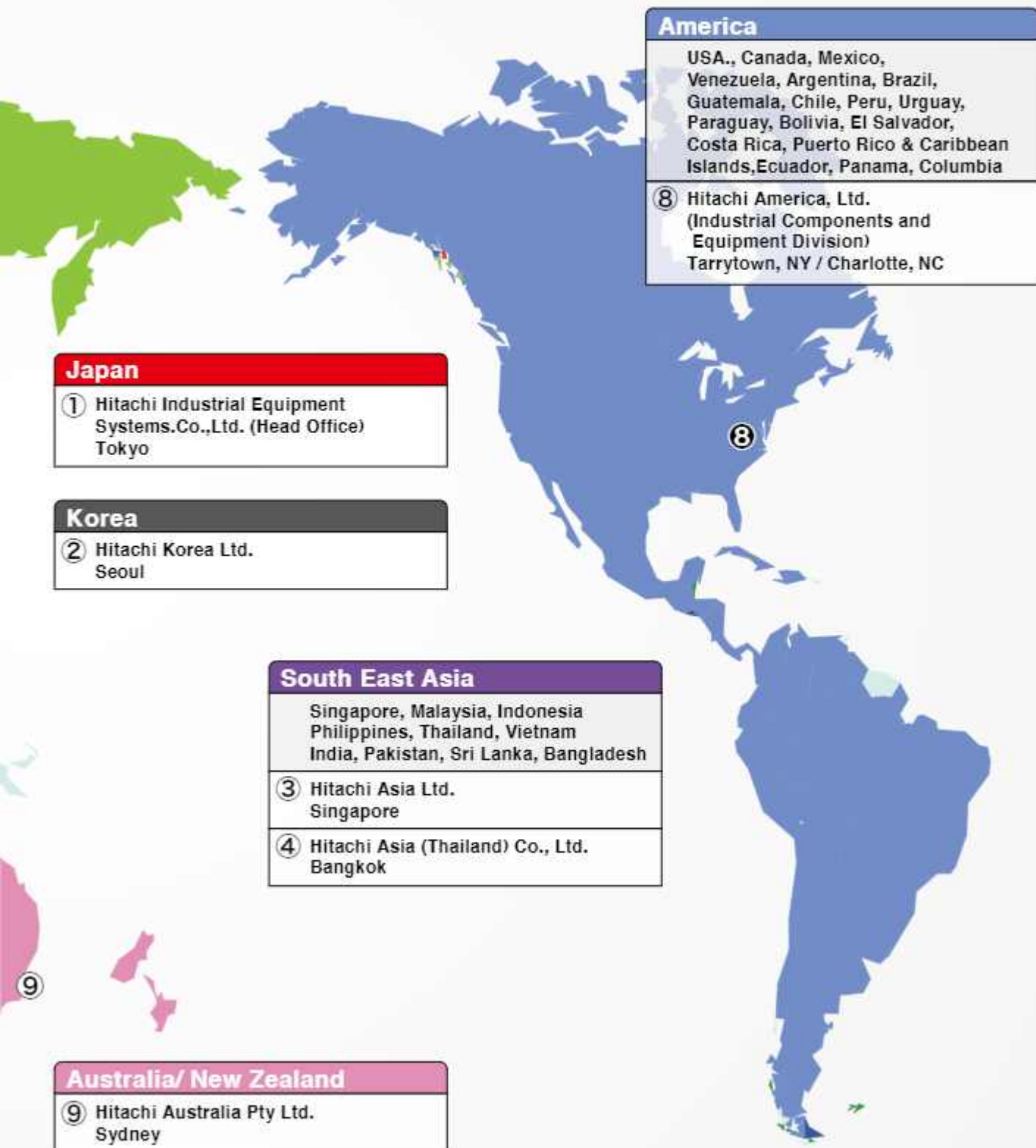
(For other areas,
please contact to Hitachi Europe)

- ⑦ Hitachi Europe GmbH
Dusseldorf

Egypt/ Middle East

Egypt, Syria, Lebanon, Saudi Arabia
UAE, Oman, Qatar, Kuwait, Bahrain

- ③ Hitachi Asia Ltd.
Singapore



Information in this brochure is subject to change without notice.

 **Hitachi Industrial Equipment Systems Co., Ltd.**

For further information, please contact your nearest sales representative.



Registration number: JQA-QMA12087

Registration date: April 1, 2005

The Marking Systems and Hoist Systems Division (Taga Division) of Hitachi Industrial Equipment Systems Co., Ltd. obtained international standard ISO 9001 certification for the quality assurance of the Ink Jet Printer contained in this brochure.