

Std model • aq model

Mimaki

SERVICE DOCUMENTS



■ This SERVICE DOCUMENTS contains the following documents.

ERVICE DOCUM	IENTS	ver 1.00	Revised 2014.09.15
This d inform CJV15 install	ocument, for use by service engineers, d nation necessary for the installation and n 50/300 series (Std and aq model) (called ation and maintenance by consulting this	escribes the instruct naintenance work o the machine below) s document and the	ions and f the machine . Perform following related
	TION CHECKLIST	ver 1.00	Revised 2014.09.05
	This "INSTALLATION CHEC information and useful informa machine including preparation after installation. It also includes "Installation Re installation or problems and tro	"KLIST" includes in ation about the insta before installation a eport" to report the i puble encountered d	nportant llation of this and user training result of the uring installation.
ACCESSO	ORIES LIST	ver 1.00	Revised 2014.09.05
	This list shows the photos of the of the machine. Before installation, check the a "ACCESSORIES LIST" to see accessories are missing, circle t the list to the "Installation Rep	the accessories conta accessories against t that no accessory is the relevant photos i ort".	ned in the package ne s missing. If any n the list and attach
INSTALLA	TION GUIDE	ver 1.00	Revised 2014.09.05
	This guide describes the inform machine and the installation pr Understand thoroughly the pro "INSTALLATION GUIDE" an machine.	nation necessary for ocedure. cedure and precauti id be sure to follow	installation of this ons described in them to install the
MAINTEN	ANCE MANUAL	ver 1.00	Revised 2014.09.15
	This manual describes the infor this machine. "MAINTENANCE MANUAL" machine, details of electrical pa and test items, assembly and dis and operation flow. Understand described in this manual and fol	mation about the aft describes the opera rts, workflow of the sassembly procedure the information and llow them to perform	er-sale service of ting principle of the service, adjustment to troubleshooting, precautions maintenance work
Request for	Care and Maintenance	ver 1.00	Revised 2014.09.05
	This manual describes procedu periodically in order to use this maintaining precision.	ares to perform freques device for a long ti	ently or me while
MECHAN	CAL DRAWING	ver 1.00	Revised
	This parts list shows the names	s of parts of the mac	hine, including the

This parts list shows the names of parts of the machine, including the part numbers and exploded views.

The names of parts referred to in "INSTALLATION GUIDE" and "MAINTENANCE MANUAL" are the same as those shown in this list. Consult this list during the disassembly and assembly of the machine or for procurement of parts.

Change Tracking

Date	2014.09.15	Manu	al Ver.	1.00	Remark	
Status	Index	Rev.				Changes
Released	_	_	New issue	d		

Serv	vice Documents > Tab	le of Contents				Rev
Mode	el CJV150/300	Issued 2014.09.15 Re	evised	F/W ver	Remark	 Rev.
T	able of Co	ontents				1.0
-						
1 At	oout Service Docun	nents				
1.	1 Constitution and	Rules				
1.	2 Symbol					
2 Se	ervice Outline					
2.	1 Safety Precaution	1				
	2.1.1 Warning L 2.1.2 Maintenan	abel ace Precaution				
2	2 Poquirod Tool					
۷.,۲	2.2.1 Tools					
2	3 Unit Conversion I	ist				
2.,	2.3.1 Conversio	n List for the Internat	ional			
	System of	Units				
3 Ba	asic Specification					
3.	1 Main Unit Specifi	cation				
	3.1.1 Main Unit ries)	Specification (for 150) se-			
	3.1.2 Main Unit	Specification (for 300) se-			
	3.1.3 Specificati	ons for Cutting Section	on			
	3.1.4 Specificati	ons for Ink				
3.2	2 PC Specification					
3.3	3 Output Speed					
3.4	4 Ink Consumption					
4 Te	echnical Information	1				
4.	1 Basic Information					
	4.1.1 Service M 4.1.2 F/W Upda	ode and Specialized	Кеу			
	4.1.3 Parameter	r Up/Download				
	4.1.4 Parameter	Function				
	4.1.5 Important 4.1.6 F/W updat	Parameter	re-			
	placement	t of the main circuit be	bard			
4.2	2 Regular Maintena	ance				
	4.2.1 Periodic C	heck Items				
	4.2.2 Checking 4.2.3 Regularly	Replaced Parts	11			
	4.2.4 Greasing					
	4.2.5 Checking					
4.3	3 About Print Quali	ty				

	About Service Documents	1
1.1 Constitution and Rules	1.2 Symbol	
		2
		3

CJV150/300

Model

1.1

Remark

Rev.

1

Z

3

4

A-1) Format of the Cover of "SERVICE DOCUMENTS"

Issued 2014.09.15 Revised

Constitution and Rules



Details

- Put the logo of "MIMAKI" at the upper right corner. The cover is to be monochrome.
- **2** Indicate the name of this machine.

F/W ver

- **3** Indicate the model name (details).
- Put white characters "SERVICE DOCUMENTS" in a black background.
- **S** Show an image (appearance) of this machine.
- Indicate the company name and URL of MIMAKI.
- **7** Put the ledger number of the document.
 - * It is not required to replace this cover at the case of item revision or document version updated.

A-2) Constitution of "SERVICE DOCUMENTS"

is "SER VICI	DOCUM ENTS" cont ains the following docur	nents.	6
SERVI	CE DOCUMENTS	ver 1.10	2008.11.27
2	This document, for use by service engineers, describ the installation and maintenance work of Printer cutt Perform the installation and maintenance by consulti documents.	es the instructions and inform er UJV-160 (called "the print ng this document and the foll	ation necessary for rt" hereafter). owing related
H	INSTALLATION CHECKLIS	T ver 1.00	Revised 2008.08.06
	This 'INSTALLATION CHECKLIS' information about the installation of i installation up to the user training aff Report' to report the result of the inst during installation.	T [*] includes important inform this printer including the prep er installation. This also inclu tallation or problems and trot	ation and useful aration before ides "Installation ibles encountered
H	ACCESSORIES LIST	ver 1.00	Revised 2008 08 06
	This list shows the photos of the acce Before installation, check the access that no accessory is missing. If any a in the list and attach the list to the "Ir	ssories contained in the pack rries against the "ACCESSOI occessories are missing, circle istallation Report".	age of the printer. RIES LIST" to see the relevant photos
-i-l	INSTALLATION GUIDE	ver 1.00	2008.08.06
	This guide describes the information installation procedure. Understand thoroughly the procedure GUIDE" and be sure to follow them	necessary for installation of t and precautions described in to install the printer.	his printer and the
	MAINTENANCE MANUAL	ver 1.10	Revised 2008.11.27
	This manual describes the informatio "MAINTENANCE MANUAL" desc details of electricial parts, workflow o assembly and disasembly procedures Understand the information and preci to perform maintenance work.	in about the after sale service ribes the operating principle of the service, adjustment and s troubleshooting, and operati autions described in this manu-	of this printer. of the printer, test items, on flow. ail and follow them
	DAILY MAINTENANCE MAN	UAL ver 1.00	Revised 2008.08.06
	This manual is prepared for the main periodic to use this printer for a long	tenance depending on the use term in keeping the accuracy	frequency or of printer.
1 i i	MECHANICAL DRAWING	ver 1.00	Revised 2008 08 06
_	This narts list shows the names of rea	rts of the printer, including th	e part numbers and

Details

- Display the component tree of "SERVICE DOCUMENTS".
- The following documents are included in "SERVICE DOCUMENTS" when the machine is released in the market.
 INSTALLATION CHECKLIST
 - □ ACCESSORIES LIST
 - □ INSTALLATION GUIDE
 - □ MAINTENANCE MANUAL
 - DAILY MAINTENANCE MANUAL
 - □ MECHANICAL DRAWING

Additions or changes are possible anytime.

- **3** Describe the outline of each document.
- Indicate the version of each document up to two decimals.
- Indicate the issued date of latest document version.
- * Replace this page at the case of item revision or document version updated.
- * The latest version of each document is administered and displayed in this page.

Rei

Rev.

1

2

3

4

 Model
 CJV150/300
 Issued
 2014.09.15
 Revised

 1.1
 Constitution and Rules

A-3) Format of Explanatory Page



Header

- Indicate the heading flow to the section.
- **2** Indicate the model name of machine.

F/W ver

- **3** Indicate the date of issue of the section.
- **4** Indicate the date of revision of the section.
- **6** Indicate the oldest firmware version to which the section relates.
- **6** Indicate additional information, such as the related serial number.
- Indicate the revision number of the section.
 - For a minor change (correction of text or change of names of parts), raise the number at the first decimal place.
 Example: 1.0 → 1.1
 - For a major change (change in specifications or modification to drawings), raise the number at the ones place.
 Example: 1.0 → 2.0
- 8 Indicate the title of item with the item number.

Index

• Indicated the chapter number, as a reference at document retrieving.

■ Footer

- Indicate Copyright at the bottom left of the page. Indicate the year of the first release of the document.
- At the bottom right of page, indicate the item number, revision number and page number.

Description

The basic format of the explanation is as follows:

- Use the same font of the same size for the characters on the page excluding the header, footer and index.
- Use only black for the characters on the page excluding those for drawings, header, footer and index.
- Locate the general drawing for adjustments or disassembly and reassembly, if any, in the upper area of the page. (19)
- Locate the drawings in the left area and the text in the right area. (
- Do not use any drawings other than line drawings, except when photos are appropriate for, say, cables.
- Enclose each symbol such as "Warning", "Caution", "Important" or "Tips" and the explanatory text with a rectangular box. ((1))
- Use "[]" and "->" when an operation function is to be shown in the text of this document.
 Example: [FUNCTION] -> [#ADJUST] -> [HEAD ADJUST] -> [SLANT ADJUST]
- Do not use any trademarks or trade names of other companies to name tools or parts. Example: INSULOK, LOCTITE
- In the explanatory text, use the same names of parts as those in "MECHANICAL DRAWING", and use bold characters for them.
- Express the explanatory text as briefly as possible.
- Avoid a redundant description of the same information or procedure.

Issued 2014.09.15 Revised

Constitution and Rules

Ren

Remark

Rev.

A-4) Format of Change Tracking

CJV150/300

Model

1.1

•	
Bence Occuments - Change Tracking Change Tracking	
Oste 2001.00.01 Manual Ver. 1.00 Remark Changes Status Indei Rec. Changes Changes Releval Image: Status New insud Image: Status Changes Image: Status Image: Status New insud Image: Status Image: Status Image: Status Image: Status Image: Status New insud Image: Status <	

			-						
				1.00					
Status	2000.08.02	Reu	ai ver.	1.00		-	hannon		
Revised	4.2.2	L.I.				U	nanyas		
Fraud	452	1.0	-					 	
Added	441	1.0	-						
		105						 	
					-				
Date	2008.08.01	Manu	al Ver.	1.00	Remark			 	
Status	Index	Rev.				c	hanges		
wereased			New ISI	us U					

Details

1 Indicate the heading flow to the section.

F/W ver

- Indicate the title of the section. For any document other than "SERVICE DOCUMENTS", indicate the name of the document in front of Change Tracking. Example: Indicate "Change Tracking" for "SERVICE DOCUMENTS" or "Maintenance Manual Change Tracking" for "MAINTENANCE MANUAL".
- S Enter the date of change in the "Date" field in the yyyy/mm/dd format.
- Enter the version of the revised document in the "Manual Ver." field.
- Enter additional information such as the related firmware version and the related serial number in the "Remark" field.
- Enter the change status in the "Status" field.
 - Released: A new version is issued when a major change, such as change in specifications, takes place. Example: $1.00 \rightarrow 2.00$
 - Revised: The correction of the document takes place. Example: Correction or addition of explanatory text and/or names of parts, or modification to and/or addition of drawings.
 - Erased: Descriptions of work or functions are deleted because of specification change or firmware upgrade.
 - Added: Descriptions of work or functions are newly added because of specification change or firmware upgrade.
- Indicate the section number of the changed section in the "Index" field.
- Indicate the revision number of the changed section in the "Rev." field.
- Describe detailed information of the change, such as the location of change, reason and purpose, in the "Changes" field.
- Prepare an independent list for Change Tracking for every version of the document. Locate the Change Tracking list for the latest version at the top. (1)
 - * Replace this cover by each user at the case of item revision or document version updated.

1

Z

F/W ver

1

2

3

4

1.1 Constitution and Rules

Issued 2014.09.15 Revised

A-5) Format of Contents

CJV150/300

Model



Header

- Indicate the flow of contents.
- **2** Indicate the model name of machine.
- **3** Indicate the date of issue of the contents.
- **4** Indicate the date of revision of the contents.
- Indicate additional information, such as the related serial number.
- **6** Indicate the revision number of the contents.
 - For a minor change (correction of text or addition of sections), raise the number at the first decimal place. Example: 1.0 → 1.1
 - For a major change (change in specifications), raise the number at the ones place. Example: $1.0 \rightarrow 2.0$
- Indicate the title of contents.
- Description
- **8** Indicate no page number. (The item number only.)
- **9** Indicate the contents in two-column format.
- **•** Use black characters of the same font and same size.
- Footer
- Indicate Copyright at the bottom left of the page. Indicate the year of the first release of the document.
- At the bottom right of the page, indicate the section number, revision number and page number.



Issued 2014.09.15 Revised

Constitution and Rules

CJV150/300

Model

1.1

Ren

Z

3

Δ

B-1) "INSTALLATION CHECKLIST"

4 Service Documents	
8 CJV30	Series 0/130/160
5 INSTALLATION	CHECKLIST
MIMAKI ENGINERRING CO. URL:http://www.mimaki.co.jpter	, LTD. nglish/top D500xxx

B-2) "ACCESSORIES LIST"



Explanation of Cover

F/W ver

- Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- Indicate the name of this machine.
- **3** Indicate the model name (details).
- ④ Indicate "SERVICE DOCUMENTS".
- For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- **7** Put the ledger number of the document.
- Constitution

The "INSTALLATION CHECKLIST" includes information useful and necessary for the installation of this machine.

- □ INSTALLATION CHECKLIST This easy-to-use check list summarizes important information and useful information about the installation including preparation before installation and user training after installation.
- □ Installation Report

This report is prepared for submitting the result of installation or the report of problems and troubles encountered during the installation to "MIMAKI" simply.

- * There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.
- Explanation of Cover
- Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- **2** Indicate the name of this machine.
- **3** Indicate the model name (details).
- Indicate "SERVICE DOCUMENTS".
- For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- Put the ledger number of the document.
- Constitution
- The "ACCESSORIES LIST" is a list of accessories contained with illustrations in the packing box.
- Check the accessories prior to the installation of this machine if there is any missing, referring to the "ACCESSORIES LIST". Make a check at the applicable check box on the list then attach it on the "INSTALLATION REPORT" at the case of missing.
- * There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.

Issued 2014.09.15 Revised

Constitution and Rules

Z

3

Δ

B-3) "INSTALLATION GUIDE"

CJV150/300

Model

1.1

4 Service Documents	
⁸ CJV30	Series
€) CJV30-60/10	0 130 160
5 INSTALLATIO	ON GUIDE
MIMAKI ENGINERRING CO	D, LTD. english/top D500xx

Explanation of Cover

- **1** Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- **2** Indicate the name of this machine.
- Indicate the model name (details).
- Indicate "SERVICE DOCUMENTS".
- **5** For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- **7** Put the ledger number of the document.
- Constitution

The "INSTALLATION GUIDE" describes the information necessary for installation of this machine and the installation procedure.

At installing, understand the procedures and caution items of this manual thoroughly for the work.

* There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.

B-4) "MAINTENANCE MANUAL"



Explanation of Cover

- **1** Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- **2** Indicate the name of this machine.
- Indicate the model name (details).
- Indicate "SERVICE DOCUMENTS".
- **5** For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- **7** Put the ledger number of the document.
- Constitution

This manual describes the information about the after-sale service of this machine. This manual describes the operating principle of the machine, details of electrical parts, working procedure of service, adjustment and test items, assembly and disassembly procedure, trouble-shooting, and operation flow.

- * Understand the information and precautions described in this manual and follow them to perform maintenance work.
- * There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.

CJV150/300

Model

Remark

Issued 2014.09.15 Revised

B-5) "DAILY MAINTENANCE MANUAL"

Service Documents	 Mimaki
 2 CJV30 60/1 	D Series 00/130/160
O AILY MAINTEN	ANCE MANUAL
MIMAKI ENGINERRIN URL:http://www.mimaki.o	KG CO., LTD. to.jp/english/top D500xxx

B-6) "MECHANICAL DRAWING"



Explanation of Cover

F/W ver

- Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- **2** Indicate the name of this machine.
- **3** Indicate the model name (details).
- ④ Indicate "SERVICE DOCUMENTS".
- For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- Put the ledger number of the document.
- Constitution

The "DAILY MAINTENANCE MANUAL" describes the procedure of daily maintenance to maintain this machine in good condition.

- * After the maintenance work, make sure to perform the work according to the "DAILY MAINTENANCE MANUAL".
- * There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.
- Explanation of Cover
- Indicate the logo of "MIMAKI" at the upper right corner. The monochrome is only accepted for the cover.
- **2** Indicate the name of this machine.
- **3** Indicate the model name (details).
- ④ Indicate "SERVICE DOCUMENTS".
- For the document name, use white letters on the black background.
- **6** Indicate the company name and URL of MIMAKI.
- Put the ledger number of the document.
- Constitution
- This document shows the names of parts of the machine, together with the part numbers and exploded views. The names of parts referred to in "INSTALLATION GUIDE" and "MAINTENANCE MANUAL" are the same as those shown in this document. Consult this document during the disassembly and assembly of the machine or for procurement of parts.
- * There is no need of replacing this cover even when the revision of sections is updated or a new version is issued.

Rev.

Service	Service Documents > Constitution and Rules					D			
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	Remark			.ev.
1.1	1.1 Constitution and Rules						1	.0	

C-1) Replacement of Updated page



■ Description

- Confirm the page changed, and remove the page if not necessary.
- 2 Insert the revision page added or revised.
- **3** Confirm the revision number of the revision page inserted.
- * It is also accepted to leave the previous page as a reference since it is administered by the revision number.
- * For the details of change, confirm the "CHANGE TRACKING".

	About Service	Documents	1
1.1 Constitution and Rules	1.2	Symbol	

Service Documents > Symbol							-	Pov	
Model	CJV150/300	Issued	2014.09.15	Revised	F/W	V ver	Remark	F	160.
1.2	1.2 Symbol						1	1.0	

■ Outline

The following symbols are used in this manual. Understand the symbols, and be sure to observe the instructions.

Symbol	Name	Description
Warning	Warning	Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to understand the instructions thoroughly and follow them to perform work.
Caution	Caution	Failure to observe the instructions given with this symbol can result in injuries to personnel or damage to property.
IMPORTANT	Important	Important notes on maintenance work are given with this symbol. Understand the instructions thoroughly, and perform maintenance work properly.
Ť	Tips	Useful information for maintenance work is given with this symbol.
(1.1.1)	Reference Page	Related description is given on the page shown by this symbol. Be sure to refer to the specified page.

4

1

2

	Service Outline			
2.1	2.2	2.3		
Safety Precaution	Required Tool	Unit Conversion List		



Service Documents > Service Outline > Safety Precaution > Warning Label						Pov	
Model	CJV150/300	Issued 2014.09.15	Revised	F/W ver	Remark		
2.	1.1 Warn	ning Label					1.0

Label Position

The following figure shows the warning labels attached to this machine. Understand the symbols, and be sure to observe the instructions of the warning labels. If the warning labels are soiled and unreadable or peeling off during the preliminary checks, replace with new warning labels after confirming with the customer.

Label Position



Service Documents > Service Outline > Safety Precaution > Warning Label						Boy	
Model	CJV150/300	Issued 2014.09.15	Revised	F/W ver	Remark		Rev.
2.	.1.1 Warn	ning Label					1.0

Label Description

•	Order Number	Label Name	Label Description
U	M903239	Heat Caution Label	Be careful of the heat.

6	Order Number Label Name 1		Label Description
Ø	M903330 Work Caution Label		Please wear the goggle and gloves at work.

6	Order Number	Label Name	Label Description		
0	M903405	Cutter Caution Label	Be careful of the cutter blade.		

	Order Number	Label Name	Label Description
4	M906144	Heat Caution Label	Be careful of the heat.

	Order Number Label Name		Label Description	
6	M907935	Dangerous voltage Label	Dangerous voltage attention	
			4	

Cidei Number Laber Name Laber Description	Label Description			
M905811 PC Label C Keep fingers and other body parts away.	Keep fingers and other body parts away.			
▲警告 ▲WARNING ▲WAARSCHUWING ▲AVE	RTISSEMENT			
日本語の 日本語の	OBILES USES			
	itres parties du nors de portée.			

1

2

3

Service Documents > Service Outline > Safety Precaution > Warning Label						Pov	Pov		
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	Remark		T.CV	•
2.	1.1 Warr	ning	Label					1.0)

G	Order Number	Label Nam	ie	Label Description
U	M906031	Power code cautio	on Label	For the removal of all power, disconnects both codes.
		WARNING AVERTISSEMENT 警告	This unit has For removal o Cet appareil Pour le mettr cordons sect 本機は、2本の電 2本とも抜くこと	two power cords. of all power, disconnects both cords. a deux cordons secteur. re hors tension, débranchez ces deux teur. 電源ケーブルがある。電源をオフする場合、 と

0	Order Number	Label Name	Label Do	escription					
0	M905935	PR caution Label	Caution f	Caution for the pinch roller operation.					
		Do n the p Or m occur	CAUTION ot move 2 levers of inch roller with hands. alfunctions may ur.	▲ 注 意 ピンチローラーの2つの レバーは、手動で動かさ ないこと。 誤作動の原因になる。					

Servic	e Documents > Serv	vice Outline > Safe	ty Precaution > Main	tenance Precautio	n	Pov
Model	CJV150/300	Issued 2014.09.1	5 Revised	F/W ver	Remark	Rev.
2	.1.2 Main	tenance	Precautio	n		1.0

ſ	
l	Narning

Caution

Before starting maintenance work, be sure to turn off the SUB power switch first and then MAIN power switch, unplug the power cable from the power inlet on the machine, and wait for more than 15 minutes.

Without waiting for an adequate period of time, the electricity in the circuits on PCBs will not be discharged completely. Under such conditions, components on PCBs may be damaged if any cable inside the machine is unplugged or plugged in. Also you may get electric shock if you touch a bare electrode.

- To protect your eyes and hands from ink, be sure to wear goggles and gloves when cleaning the print head or replacing the pump assy or when there is a possibility that ink may scatter. Your hands can get rough and dry if they are stained with the ink.
- A button type lithium battery is used for this board. Warn following 1)~4).
 - 1), Danger of explosion if battery is incorrectly replaced.
 - 2), Replace only with the same or equivalent type recommended by the manufacture.
 - Recommended type : [CR1220]
 - 3), Dispose of used batteries according to the manufacturers instructions.
 - 4), When the battery is replaced with a new one, pay attention to the polarity at replacing.

■ When removing or installing dampers, take great care not to permit ink leakage and not to stain any parts with ink. A drop of ink on FFCs or connectors may cause a short circuit or poor electrical contact, thus resulting in faulty ink ejection or damage to the head or PCBs.

- Carefully connect the FFC cable between the main PCB and the SL2H PCB so that the connectors of the same number meet each other. A wrong connection may cause a short circuit of the power supply and thus damage the PCBs.
- Take great care not to confuse the two FFC cables between the SL2H PCB and the head; otherwise, the power supply would be short-circuited.
- Do not turn off the power during firmware upgrading. Doing so may disable restarting.



Preliminary Checks

Before starting work, make sure that the following conditions are all met:

- 1. 🗖 Understand thoroughly all the instructions given in "Warning for Use" in the Operation Manual before starting work.
- 2. \Box The following conditions for the power supply system are all met:
 - \Box The power supply voltage must be within the specification limits.
 - \Box The machine must be grounded properly.
 - □ The power cable must be free from damage, broken wire, etc. Many cables must not be connected to one outlet.
 - □ The location must be such that the cable can be easily unplugged from the wall outlet in case smoke or flame has been risen from the electrical system.
- 3. Some trouble may be due to misoperation. Judge whether or not the error display and the error condition signify misoperation.

2

Service Documents > Service Outline > Safety Precaution > Maintenance Precaution

Model CJV150/300 Issued 2014.09.15 Revised F/W ver 2.1.2 Maintenance Precaution

Precautions in Work

Take the following precautions during maintenance work:

- 1. \square Provide adequate space for the maintenance work.
- 2. D When performing tests with the electrical box cover open, be careful not to receive an electric shock from any live part. Also take care not to drop screws or any other parts into the circuit box.

Remark

- 3. \Box Take care to avoid insufficient insertion or skewed insertion of any connector or FFC.
- 4. Do not touch FFCs with your fingers. Doing so may cause contact failure.
- 5. D The lever of each FFC connector breaks easily. Move it up or down gently when releasing or locking the connector.
- 6. D Pay attention to the movement of the head if you are required to perform maintenance work with the power on. (Keep all parts of your body away from moving parts.)
- 7. Use jog keys to move the media (in the X direction) or the head (in the Y direction).
 The media or head can be moved by hand with the power turned off. In doing so, however, exercise care to move them slowly.
- 8. Do not tilt the machine if ink cartridges are filled with ink. Doing so can cause ink leakage. Follow the procedure described below before transporting the machine. Use the dedicated packaging materials to transport the machine.
 - □ Remove the ink from the tubes by following the procedure of [#ADJUST] -> [HEAD WASH].
 - □ Remove the maintenance solution from the tubes by following the procedure of [#ADJUST] -> [MaintWashLiq-uid].
 - \Box Remove the waste ink tank.
 - \Box Install the head stopper to fasten the head.

2.1.2 R.1.0 P.2



Rev.

1.0

2

Δ

			1
		Service Outline	0
2.1 Safety Precaution	2.2 Required Tool	2.3 Unit Conversion List	2



Servic	e Documents > Ser	vice Ou	tline > Requi	red Too	l > Tools		F	
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ve	Remark		ιev.
2	.2.1 Tools	5					1	.0

■ Tools

The table below shows the tools to be used in maintenance work. In the table, each adjustment item for parts requiring the relevant tool is marked with "O".

Name	Category	Remarks	Cover Assy	Leg Assy	Frame Assy	Clamp Assy	X-drive Assy	Y-drive Assy	Bear Assy	SL2H PCB	Station Assy	Cap Base Assy	Wiper Assy	Waste Ink Tank Assy	Print Head Unit	Cutter Head Unit	Electrical Device Assy	Platen Assy	Cartridge Assy	Washing Cartridge	Take-up Device Assy	Roll Assy	Dry & Exhaust Assy	Installation or change of location	Adjustment of the print head	Adjustment of the pen stroke.	Adjustment of the pen pressure	Adjustment of the mark	Adjustment of the edge	Distance accuracy	
Phillips Screwdriver Type 1	Tool	For M2			0						1		1		1		1	0					0	1							l
Phillips Screwdriver Type 2	Tool	For M3 to M5 (L=260 or more) For M3 to M5	0	0	0	00	0	0	0	0	0	0	0	0	0	0	0	00	00	0	0	0	0	0	0	0					
Slotted Screwdriver	Tool	Long side 2.5mm	0			0					0				0				0												l
Hexagon Wrench	Tool	1.5mm for M3 SSWP	-			-					0		0		-				-		0	0									1
		2.0mm for M4 SSWP 2.5mm for M3 cap bolts 3.0mm for M4 cap bolts 4.0mm for M5 cap bolts 5.0mm for M6 cap bolts 6.0mm for M8 cap bolts		0	0	0		0							0								0	0							
Spanner	Tool	Width across flats: 5mm																													J
		Width across flats: 5.5mm M3 Width across flats: 7mm M4 Width across flats:			0			0															0								
Snan Ring Plier	Tool	Tomm																			0	\cap									1
Loupe	Tool	x50 or x60													0										0						1
Ink Line Airtight Tester	lig	OPT-10094																	\cap												l
Head Inside Washing Jig Set	lig	OPT-10136													0				0											_	1
Auto Cutter Height Adjustment Jig	Jig	01130130																													
Head Height Adjustment Jig	Jig																														l
Bar Type Tension Gauge	Tool	100gf and 500gf														0											0				1
Scale	Tool	150mm 500mm																											0	0	
Trimmer Adjustment Screwdriver	Tool															0												0			
Long-nose Pliers	Tool		0			0					0																				1
Nippers	Tool										0	0																			l
Thickness Gauge	Tool															0										0					1
Solvent Washing Liquid	Expendable	For cleaning or head washing																													
Grease	Expendable	MG-A1-GU LONGTERM-W2-GU				0										0															
Based Ink	Expendable	In the standard state of the size																0													
Waste Cleth	Expendable	For algority																0													l
Cotton Swab	Expendable	For cleaning											F	-	F									F							l
Gloves	Expendable	Gloves with ailproof										\vdash	\vdash	\vdash	\vdash								\vdash	\vdash							ł
Industrial Alcohol	Expendable	and tolerance																													
Cable Tie	Expendable	washing																												_	
		(UL-approved product)																													l
Acetate Fabric Tape	Expendable								0						0																l
Drafting Tape	Expendable																														l
Double-stick Tape	Expendable								0									0													l
Tweezers	Tool																														l
Cutter Knife	Tool									_																					l
Tester	Tool																														l
Goggles	Tool																														J

2 3

4

		Service Outline	
2.1	2.2	2.3	2
Safety Precaution	Required Tool	Unit Conversion List	

4

CJV150/300 Issued 2014.09.15 Revised

Model

Conversion List for the International System of Units 2.3.1

F/W ver

Remark

Rev.

1.0

Conversion list for the international system of units

The following is a conversion table among the International System of Units, the Gravitational System of Units and the Inch-pound System of Units.

	International S	ystem of Units	Gravitational S	System of Units	Inch-pound S	ystem of Units
	[N]	[cN]	[kgf]	[gf]	[ozf]	[lbf]
1[N]	1	100	0.102	101.97	3.60	0.225
1[cN]	0.01	1	0.001019716	1.02	0.03597	0.002248089
1[kgf]	9.81	980.67	1	1000	35.27	2.20
1[gf]	0.00980665	0.981	0.001	1	0.03527	0.002204623
l[ozf]	0.278	27.80	0.02835	28.35	1	0.0625
1[lbf]	4.45	444.82	0.45359237	453.59	16	1

3.13.2Main Unit SpecificationPC Specification

3.4

Ink Consumption

		2
Basic	Specification 3.3 Output Speed	3
		4

1

© 2014 MIMAKI ENGINEERING CO., LTD.

Main Unit Specification (for 150 series) 3.1.1

■ Specifications

	Iterre		Specif	lication		Demosiles
	Item	CJV150-75	CJV150-107	CJV150-130	CJV150-160	кешагкя
Head		On-demand piezz (8 nozzle line/1 h Drop size; WF3 : Small:4pl	zo head IA5540 head, 180 nozzle/1 , Middle:16pl, Lai	l nozzle line, nozz	zle pitch 180dpi)	
		WF4 : Small:4pl	, Middle:16pl, La	rge:35pl		
Printing resolu	tion	360, 540, 720, 14	140dpi			Variable dot support
Printing speed						In case of 4-color is used
Print mode (Scan x Feed)		360 x 540 x 720 x 720 x 1440 x	360dpi VD : 360dpi VD : 720dpi VD : 1080dpi VD : 1440dpi VD : 1440dpi :			
Ink	4-color set installed	M, C, Y, K (SS2	l) / M, Bl, Y, K o	or DK (Sb53*1)		Total 8 cartridges with IC chip
	6-color set installed	M, Bl, Y, K or D	K, Lm, Lbl (Sb53	*1)		installed
	8-color set installed	M, C, Y, K, Lm,	Lc, Or, Lk (SS21 ³	*2)		*1:Std model; Available by a
	6-color +W set installed	M, C, Y, K, Lm,	Lc, W, W (SS21*	2)		parameter change*2:Not available for aq model
	6-color +W \cdot Si set installed	M, C, Y, K, Lm,	Lc, W, Si (SS21*2	2)		
Ink supply		For 4-color and 6 installing 2 c The ink end uses	color M, Bl only cartridges (cartridg cartridge end pla	y, the supply is tog ge can be replaced te detection	gled switched by during printing)	
Ink capacity	4-color set installed M and Bl in 6-color set installed	Two 440-cc cartr	idges for each col	lor, that is 880 cc	for each color	
	Except above set installed	One 440-cc cartr One 220-cc cartr	idges for M,C,Y,k each colo idges for W,Si eac color			
Media that car	be used	Label media (pa more than 0.25 (except high-bri sheet	per-based), PV s mm thick), fluoro ghtness reflectiv			
Maximum pr	inting width	800 mm	1090 mm	1361 mm	1610 mm	When the minimum right and left non-printing areas are set
Media specs	Maximum width	810 mm	1100 mm	1371 mm	1620 mm	
	Minimum width	210 mm				
	Thickness	1.0 mm or less				
	Roll O. D.	Paper media: ϕ_{i}^{2}	250 mm or less 210 mm or less			
	Roll weight	40 kg or less				
	Paper sleeve I. D.	2 inches or 3 inc	ches (only 3 inch	nes for fast speed	mode)	
	Printing surface	Side facing out	ward			
	Take-up processing	Roll end fixed v	with adhesive tap	e or weak glue		
Print margin	Roll	Left/Right:15 mr Front: 120 m Back: 150 m	n (default value) m m	Tolerance excluding media inclined pass is ±2mm The left and right margins can be		
	Cut sheet	Left/Right:15 mr Front: 120 m Back: 150 m	n (default value) m m			changed Minimum 5mm
Origin positio (LED pointer	on matching	Positioning by t • Pointer is use value	the LED pointer and when printing	mounted on the l origin is change	head actuator d from default	

Rev.

1.0

CJV150 Issued 2014.09.15 Revised

Model

F/W ver Remark

3.1.1 Main Unit Specification (for 150 series)

Rev.

1

2

3

Item CJV150-13 CJV150-130 CJV150-130 <th></th> <th></th> <th></th> <th>Specif</th> <th>ication</th> <th></th> <th></th>				Specif	ication		
Distance Repeatability 0.3 mm or 40.3% of specified distance, whichever is larger 40.2 mm or 40.1% of specified distance, whichever is larger which a kate Excluding test media photo paper (specified distance, whichever is larger) Excluding test media photo paper (specified distance, whichever is larger) Squareness 40.3 mm / 1000 mm		Item	CJV150-75	CJV150-107	CJV150-130	CJV150-160	Remarks
Squarenes $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Print gap Manual 3 step adjustment(2.0:2.5/3.0) +1 mm or +2mm, selection at install. $= 0.5 \text{ mm or liss?}$ Media islaw $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Media islaw $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Media islaw $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Media islaw $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Media islaw $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Weist ink tank $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ $= 0.5 \text{ mm or liss?}$ Maste ink tank $= 0.5 ReAV (250 O c)$ $= 0.5 \text{ ReAV (250 RP)$ $= 0.5 \text{ ReAV (250 RP)$ Command MRL-1V MARS = $= 0.5 \text{ ReAV (250 RP)$ $= 0.5 \text{ ReAV (250 RP)$ Compliance S1 dB or less $= 0.5 \text{ ReAV (250 RP)$ $= 0.5 \text{ ReAV (250 RP)$ $= 0.5 \text{ ReAV (250 RP)$ Discontinuous 75 dB or less $= 0.5 \text{ ReAV (250 RP)$ $= 0.5 \text{ ReAV (250 RP)$	Distance accuracy	Absolute accuracy Repeatability	±0.3 mm or ±0.3 ±0.2 mm or ±0.1	% of specified dis % of specified dis	tance, whichever	is larger	Excluding test media photo paper glossy paper contraction and expansions Excluding initial meandering
Media skew 5 mm or iss/10 m imma 3 skg adjustment(2 0.2 5/3 0) +1 mm or +2 mm, selection at install, install, install, install, install manual 3 skg adjustment(2 0.2 5/3 0) +1 mm or +2 mm, selection at install, its issel	Squareness		±0.5 mm/1000 m	ım			
Print gap Mamal 3 step adjustment(2.0.2.53.0) +1 mm or +2mm, selection at meall. Media heater PRE-PRINT/AFTER -60 / 60 / 60 / 60 / 60 / 60 / 53 system independently control Image: Print Pri	Media skew		5 mm or less/10	m			
Madia heater PREPRINT/AFTER. 60/ 60/ 60 3 system independently control	Print gap		Manual 3 step ad install,	ljustment(2.0/2.5/.	3.0) +1 mm or +2n	nm, selection at	
MCT 2 path installed Installed UIRS Installed Installed Washing cartridge Installed Cutting tool is an expendable iten Severing precision (misalignmen) 0.5 mm or less Cutting tool is an expendable iten Severing precision (misalignmen) 0.5 mm or less Waste ink tunk Bottle type (2000 cc) * Cable supplied Interface Mounted standard USB2.0 * Cable supplied Interface Mounted standard USB2.0 * Cable supplied Command MRL-IV MRL-IV * Cable supplied Standby 51 dB or less. (FAST-A, at 1 m from the front, rear, right and left side of the machine) * Cable supplied Displayable language 13 panese/English * * Noise Standbry 51 dB or less * Displayable language 19 VCC1 class A 31/L (A0950-1) * * ACCord to 120V 1440W or less, AC220 to 240V 1920W or less, Ch3 (Cl as A 31/L (A0950-1) * Vith remote SW function * * Vith remote SW function * Soloditis REACH, Energy Star * Mathinery Detective side of the machine) * Vith remote SW function * Soloditis Call to 120V 1440W or less, AC220 to 240V 1920W or less, * * Not including	Media heater		PRE/PRINT/AF 3 system indepen	TER :60 / 60 / 60 idently control			
UISSInstalledInstalledInstalledWashing cartridgeNot installedNot installedMedia severingY-axis cut by head cutter Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recision (missing genent) 0.5 mm or lessCutting tool is an expendable ten Severing recisionMARSMARSMARSMARSMARSSevering recision*Cable suppliedMarge commandMRL-1V </td <td>MCT</td> <td></td> <td>2 path installed</td> <td></td> <td></td> <td></td> <td></td>	MCT		2 path installed				
Washing cartridge Installed CU (nozzle missing detect) Not installed Media severing Vaxis cut by head cutter Severing precision (misalignment) 0.5 mm or less Cutting tool is an expendable iten Severing precision (misalignment) 0.5 mm or less Cutting tool is an expendable iten Severing precision (misalignment) 0.5 mm or less Maste ink Ink Bottle type (2000 cc) * Cable supplied Interface Mounted standard USB 2.0 * Cable supplied Ethernet: 100BASE-TX (For output printing status) * Cable supplied * Command MRL - IV * MAPS MAPS3 > Discontinuous 75 dB or less Discontinuous 75 dB or less Ocompliance with standards 1)VCCI class A 2)UC for So foi 1 4/CE Marking (EMC Directive , Low Voltage Directive and Machinery Dotective) 5/CE report 6/RoHs REACH, Energy Star Power consumption 1440W (AC100 - 120V) or less. Main state and and 20 °C - 35 °C Main state and and With sleep function mode Attive humidity 35 % - 65 % Rh (no condensation) Ink discharge stability can drop underany ambient conditions execeding the specified limits. <	UISS		Installed				
NCU (nozzle missing detect) Not installed Image decompression (missling much) 0.5 mm or less Cutting tool is an expendable inergenergies on (missling much) 0.5 mm or less Waste ink tank Botte type (2000 cc) * Cable supplied Image decompression memory SD-RAM 256MB * Cable supplied Image decompression memory SD-RAM 256MB * Cable supplied Command USB2.0 * Cable supplied MAPS MAPS3 MAPS3 Displayable language Japanese/English * Displayable language Japanese/English * Displayable language 75 dB or less * Discontinuous operation 75 dB or less * Discontinuous operation 75 dB or less * Ower supply and power consumption AC100 to 120V 1440W or less, AC20 to 240V 1920W or less, SVG Preport of NoHz=Hz *. Input manual switching *With remote SW function Ambient conditions 20 °C - 25 °C * Indefange endle of rag model Quality assurance temperature 20 °C - 25 °C Indefange endle of rag model * Quality assurance temperature 20 °C - 25 °C * Indefange endle of rag model Quality assurance temperature </td <td>Washing cartrid</td> <td>lge</td> <td>Installed</td> <td></td> <td></td> <td></td> <td></td>	Washing cartrid	lge	Installed				
Media severing Y-axis cal by head cutter Severing precision (misalignment) 0.5 mm or less Cutting tool is an expendable liter Severing precision (misalignment) 0.5 mm or less Cutting tool is an expendable liter Waste ink tank Bottle type (2000 cc) \rightarrow Cable supplied \rightarrow Cable supplied Image decompression memory SD-RAM 256MB \rightarrow Cable supplied \rightarrow Cable supplied Command MRL-IV MAPS3 \rightarrow Disphyable language Japanese/English \rightarrow Noise Standby 51 dB or less. (FAST-A, at 1 m from the front, rear, right and left isde of the machine) \rightarrow Discontinuous operation 75 dB or less \rightarrow \rightarrow Compliance with standards 1/VCC1 class A 2/FCC class A 3/UL (6905-1) \rightarrow \rightarrow Rower supply and power consumption AC100 to 120V 1440W or less, AC220 to 240V 1920W or less, 5/060H2±H1z \rightarrow \rightarrow Rower consumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Main unit, including heater excluding options \rightarrow Ambient con- itions Evrice reaperature $20^{\circ}C - 25^{\circ}C$ \rightarrow Index integrate the official limits. Quilty assurance reaperature $20^{\circ}C - 25^{\circ}C$ \rightarrow \rightarrow <	NCU (nozzle n	nissing detect)	Not installed				
Waste ink tank Bottle type (2000 cc) StD-RAM 256MB Interface Mounted standard USB2.0 * Cable supplied Commad MRI-1V Ethernet: 100BASE-TX (For output printing status) * Cable supplied Commad MRPS MAPS * Standby 51 B or less: (FAST-A, at 1 m from the front, rear, right and left side of the machine) * Displayable language Japanese/English * * * Noise Standby 51 B or less: (FAST-A, at 1 m from the front, rear, right and left side of the machine) * * Displayable language 75 dB or less * * * * Compliance with standards D/VCCI class A 3/UL 60950-1 * * * * Actionery Detective sice is (EACT, Energy Star * * * * * Power supply and power consumption 1440W (AC100 - 120V) or less * Main unit, including heater excluding options * * With remote SW function * Neibert eron Strice ray ambient conditions Eenriperature range 20 °C - 35 °C * * Quality assurance gradient 0.15mg/m ²	Media severing	3	Y-axis cut by hea Severing precisio	nd cutter on (misalignment)	0.5 mm or less		Cutting tool is an expendable item.
Image decompression memory EARAM 256MB * Cable supplied Interface Mouned standard USB2.0 * Cable supplied Command MRL-1V * Cable supplied MAPS MAPS3 * Cable supplied Displayable language Japanese/English * Noise Standby \$1 dB or less. (FAST-A, at 1 m from the front, rear, right and left side of the machine) During operation 65 dB or less * Operation 75 dB or less. * Operation 75 dB or less. * Operation 75 dB or less. * Standby * 1/UCC1 class A 2)FCC class A 2)FCC class A 3/UL 60950-1 AyUL 60950-1 4/CE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) 5/CB report 6/RoHS * Stonsumption AC100 to 120V 1440W or less, AC220 to 240V 1920W or less, * * Power supply and power AC100 to 120V 1440W or less, AC220 to 240V 1920W or less, * * Stonsumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Molient comparature range 20 °C - 35 °C Min anti, including heater excluding options Mation Adjustranza 20 °C -	Waste ink tank		Bottle type (2000) cc)			
Interface Mounted standard USB2.0 * Cable supplied Command MRL-IV * Cable supplied MAPS MAPS3 * Cable supplied Displayable language Japanese/English * Noise \$ Standby \$ S1 dB or less. (FAST-A, at 1 m from the front, rear, right and left side of the machine) Dispontationary operation 65 dB or less * Discontinuous operation 75 dB or less. * Compliance with standards 1/VCCI class A 2/FCC class A 3/UL 60050-1 * 3/UL 60050-1 * * AC100 to 120V 1440W or less, AC220 to 240V 1920W or less, 50/6012-E11Hz * Power supply and power consumption 1440W (AC100 - 120V) or less * Ambient cond the maperature range 20 °C - 35 °C * Mations 15 °C + 0.5 °R h (no condensation) * Quality assurance 20 °C - 25 °C * Temperature gradient ±10 °C/h or less * Dust 0.15mg/m³ (Equivalent to the atmosphere in offices) * Option * * * Meight Main body 162 kg 150 kg	Image decomp	ression memory	SD-RAM 256MI	B			
Command MRL-IV MAPS3 Displayable language Japanese/English Image: Standby	Interface	Mounted standard	USB2.0 Ethernet: 100BA	SE-TX (For output	it printing status)		* Cable supplied
$\begin{split} \begin{tabular}{ c c c c } \hline MAPS3 & \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Command	1	MRL-IV	•			
Displayable language Japanese/English Image: [CAST-A, at 1 m from the front, rear, right and left side of the machine) Noise Standby 51 dB or less [CAST-A, at 1 m from the front, rear, right and left side of the machine) During operation 65 dB or less [CAST-A, at 1 m from the front, rear, right and left side of the machine) [CAST-A, at 1 m from the front, rear, right and left side of the machine) Discontinuous operation 65 dB or less [CAST-A, at 1 m from the front, rear, right and left side of the machine) Compliance with standards 1)VCC1 class A 3)UL 60950-1 [CCass A, 3)UL 60950-1 4)CCE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) S(CB report 6(RoHs REACH, Energy Star [Notesset] Power supply and power $20 (C - 35 \ CL = 10 \ C/h or less \ Energerature range [Note C- 25 \ CL = 10 \ C/h or less \ Energerature range [Notes and range stability can drop in the specified limits. Ambient conditions [Relative humidity] 35 \ % - 65 \ % Rh (no condensation) \ Temperature range indiction and the specified limits. [Integrative and and and specified limits. Option 100 \ C/h \ C/h \ Site gratication reagenergia [Integrative and installed for aq mobien conditions and installed for aq mode] [Integrative and rangenergia Option 1100 \ C/h \ C/h \ Site gratication reagenergia [Integrative and rangenergia] $	MAPS		MAPS3				
Noise Standby 51 dB or less. (FAST-A, at 1 m from the front, rear, right and left side of the machine) During operation 65 dB or less Image: Construction operation 57 dB or less Compliance with standards 1)VCC1 class A 2)FCC class A 3)UL (6950-1 4)(CE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) 5)(CB report 6)(KPIs REACH, Energy Star • Input manual switching . Power supply and power $AC100 \text{ to } 120V 1440W \text{ or less, AC220 to 240V 1920W or less, S060Hz-E1Hz • With remote SW function mode . Power supply and power AC100 \text{ to } 120V 1440W \text{ or less, AC220 to 240V 1920W or less, S060Hz-E1Hz . • With sleep function mode . Power consumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Ambient conditionary 20 °C - 25 °C Ink discharge stability can drop udrary ambient conditions . Quality assurance itemperature range irradient \pm 10 °C/h or less . Ink discharge stability can drop udrary ambient conditions . Option 110 \text{ Cr}/h or less . 10 \text{ cr}/h cr 25 °C . Ink discharge stability can drop udrary ambient conditions . Quality assurance irradiation 20 °C - 25 °C . Ink discharge stability can drop udrary ambient conditions . Option 0.15 \text{ mg/m}^3 (Equivalent to the atmosphere in offlices) Infecti (Standard in stabiled for aq model$	Displayable lar	iguage	Japanese/English	1			
During operation65 dB or lessImage: space of the sp	Noise	Standby	51 dB or less. (I side of the mach	FAST-A, at 1 m f hine)	from the front, re-	ar, right and left	
Discontinuous operation75 dB or lessImage: constraint of the standards75 dB or lessImage: constraint of the standardsCompliance with standards1)VCCI class A 2)FCC class A 3)UL 60950-1 4)CE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) 5)CB report 6)RoHs REACH, Energy StarImage: constraint of the standardsImage: constraint of the standardsPower supply and power consumptionAC100 to 120V 1440W or less, AC220 to 240V 1920W or less, 50/60Hz±HzImage: constraint of the standardsImage: constraint of the standardsPower consumptionAC100 to 120V 1440W or less, AC220 to 240V 1920W or less, 50/60Hz±HzMain unit, including heater excluding optionsImage: constraint of the standardsPower consumption1440W (AC100 - 120V) or lessMain unit, including heater excluding optionsMain unit, including heater excluding optionsAmbient con- ditionsService temperature range20 °C - 35 °CImage: constraint of the standardsQuality assurance gradient20 °C - 25 °CImage: constraint of the standardsImage: constraint of the standard installed for aq model)Option0.15mg/m3 (Equivalent to the atmosphere in offices)Image: constraint of the standard installed for aq model)Option126 kg142 kg157 kg168 kgWeightMain body126 kg142 kg157 kg166 kgNo legs100 kg112 kg126 kg136 kgNo legs100 kg112 kg126 kg136 kg		During operation	65 dB or less				
Compliance with standards 1)VCC1 class A 2)FCC class A 3)UL 60950-1 4)CE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) 5)CB report 6)RoHs REACH, Energy Star • Input manual switching • With remote SW function • With sleep function mode Power supply and power consumption $20^{\circ}C - 35^{\circ}C$ • Input manual switching • With remote SW function • With sleep function mode Power consumption $1440W$ (AC100 - 120V) or less function + heater Main unit, including heater excluding options Ambient conditions $1440W$ (AC100 - 120V) or less function + heater Main unit, including heater excluding options Ambient conditions $20^{\circ}C - 35^{\circ}C$ Ink discharge stability can drop under any ambient conditions. Quality assurance temperature $20^{\circ}C - 25^{\circ}C$ Integration $10Vrige Fan unit (Use separately power supply)2)Sticking prevention net3)AMF unit (Standard installed for aq model) Integration 00 \log 126 \log 126 \log 136 \log 00 \log 126 \log 126 \log 136 \log $		Discontinuous operation	75 dB or less				
Power supply and power consumption AC100 to 120V 1440W or less, AC220 to 240V 1920W or less, With remote SW function interpretation Power consumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Power consumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Ambient conditions Service temperature range $20 \circ C - 35 \circ C$ Ink discharge stability can drop under any ambient conditions Quality assurance fragment $20 \circ C - 25 \circ C$ Instrument of temperature $20 \circ C - 25 \circ C$ Ink discharge stability can drop under any ambient conditions Quality assurance gradient $20 \circ C - 25 \circ C$ Instrument of temperature $10 \circ C/h$ or less Instrument of temperature Instrument of temperature Option 10 Tyring Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) 10 Relative dual to the discular distalled for aq model) 10 Relative dual to the discular distalled for a model) Weight Main body 126 kg 142 kg 157 kg 168 kg 136 kg 200 kg No legs 100 kg 112 kg 126 kg 126 kg 126 kg 126 kg 126 kg 126 kg <	Compliance w	ith standards	1)VCCI class A 2)FCC class A 3)UL 60950-1 4)CE Marking (Machinery J 5)CB report 6)RoHs REACH, Energ	(EMC Directive Detective) y Star	Low Voltage Di	rective and	
Inlet1; control + heater• With steep function inducePower consumption1440W (AC100 - 120V) or lessMain unit, including heater excluding optionsAmbient conditions ditionsService temperature range20 °C - 35 °CInk discharge stability can drop under any ambient conditions exceeding the specified limits.Quality assurance gradient20 °C - 25 °CInk discharge stability can drop under any ambient conditions exceeding the specified limits.Dust0.15mg/m³ (Equivalent to the atmosphere in offices)0Option1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model)168 kgWeightMain body126 kg142 kg157 kg168 kgNo legs100 kg112 kg126 kg136 kgPacking167 kg188 kg210 kg225 kg	Power supply consumption	and power	AC100 to 120V 50/60Hz±1Hz	1440W or less,	AC220 to 240V	1920W or less,	 Input manual switching With remote SW function With along function mode
Power consumption 1440W (AC100 - 120V) or less Main unit, including heater excluding options Ambient conditions Service temperature range $20 \degree C - 35 \degree C$ Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Relative humidity $35 \% - 65 \%$ Rh (no condensation) Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Quality assurance temperature $20 \degree C - 25 \degree C$ Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Temperature gradient $\pm 10 \degree C/h$ or less Interperature $\pm 10 \degree C/h$ or less Dust $0.15 mg/m^3$ (Equivalent to the atmosphere in offices) Interperature Option 1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) Stabal distability for aq model) Weight Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Interperature Packing 167 kg 188 kg 210 kg 225 kg Interperature			Inlet1; control +	heater			• with sleep function mode
Ambient conditions Service temperature range 20 °C - 35 °C Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Relative humidity 35 % - 65 % Rh (no condensation) Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Quality assurance temperature 20 °C - 25 °C Ink discharge stability can drop under any ambient conditions exceeding the specified limits. Temperature ±10 °C/h or less Interperature Dust 0.15mg/m³ (Equivalent to the atmosphere in offices) Interperature Option 1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Interperate in 36 kg Packing 167 kg 188 kg 210 kg 225 kg Interperate in 36 kg	Power consum	nption	1440W (AC100) - 120V) or less			Main unit, including heater excluding options
Relative humidity35 % - 65 % Rh (no condensation)exceeding the specified limits.Quality assurance temperature $20 ^{\circ}\text{C} - 25 ^{\circ}\text{C}$ exceeding the specified limits.Temperature gradient $\pm 10 ^{\circ}\text{C/h}$ or lessor lessDust 0.15mg/m^3 (Equivalent to the atmosphere in offices)Option1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model)168 kgWeightMain body126 kg142 kg157 kg168 kgNo legs100 kg112 kg126 kg136 kgPacking167 kg188 kg210 kg225 kg	Ambient con- ditions	Service temperature range	20 °C - 35 °C				Ink discharge stability can drop under any ambient conditions
Quality assurance temperature 20 °C - 25 °C Temperature gradient ±10 °C/h or less Dust 0.15mg/m³ (Equivalent to the atmosphere in offices) Option 1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) Weight Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Packing 167 kg 188 kg 210 kg 225 kg		Relative humidity	35 % - 65 % Rh	n (no condensatio	on)		exceeding the specified limits.
Temperature gradient $\pm 10 ^{\circ}C/h {\rm or} {\rm less}$ Dust $0.15 {\rm mg/m^3} ({\rm Equivalent to the atmosphere in offices})$ Option1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model)WeightMain body126 kg142 kg157 kg168 kgNo legs100 kg112 kg126 kg136 kgPacking167 kg188 kg210 kg225 kg		Quality assurance temperature	20 °C - 25 °C				
Dust 0.15mg/m³ (Equivalent to the atmosphere in offices) Option 1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) Weight Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Packing 167 kg 188 kg 210 kg 225 kg		Temperature gradient	±10 °C/h or less	5			
Option 1)Drying Fan unit (Use separately power supply) 2)Sticking prevention net 3)AMF unit (Standard installed for aq model) Weight Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Packing 167 kg 188 kg 210 kg 225 kg		Dust	0.15mg/m ³ (Eq	uivalent to the at	mosphere in offic	ces)	
Main body 126 kg 142 kg 157 kg 168 kg No legs 100 kg 112 kg 126 kg 136 kg Packing 167 kg 188 kg 210 kg 225 kg	Option		1)Drying Fan u 2)Sticking prev 3)AMF unit (St	nit (Use separate ention net andard installed	ly power supply) for aq model))	
No legs 100 kg 112 kg 126 kg 136 kg Packing 167 kg 188 kg 210 kg 225 kg	Weight	Main body	126 kg	142 kg	157 kg	168 kg	
Packing 167 kg 188 kg 210 kg 225 kg		No legs	100 kg	112 kg	126 kg	136 kg	
		Packing	167 kg	188 kg	210 kg	225 kg	

Main Unit Specification (for 150 series) 3.1.1

Item -			Specif	Domoniza		
		CJV150-75	CJV150-107	CJV150-130	CJV150-160	Kelliai Ks
Dimensions (W x D x H)		1965 x 700(930*4) x 1392 mm	2255 x 700(930*4) x 1392 mm	2525 x 700(930*4) x 1392 mm	2775 x 700(930*4) x 1392 mm	*4:AMF device is included
	Packing	2250 x 750 x 1050 mm	2662 x 750 x 1050 mm	2662 x 750 x 1050 mm	2980 x 750 x 1050 mm	

3.1.2 Main Unit Specification (for 300 series)

■ Specifications

	•.	Specif		
	Item	CJV300-130	Remarks	
Head		On-demand piezzo head IA5540)	
		(8 nozzle line/1 head, 180 nozzle		
		180dpi, 2head stagger)		
		Drop size; WE2 · Small:4nl Middle:16nl L	argo:22nl	
		WF4 · Small·4pl, Middle·16pl, L	arge:35nl	
Printing resolut	tion	360 540 720 1440dpi	arge.sspi	Variable dot support
Printing speed		000, 010, 720, 1110apr		In case of 4-color is used
Print mode		360 x 360dpi VD :		
(Scan x Feed)		540 x 360dpi VD :		
		540 x 720dpi VD :		
		720 x 1080dpi VD : 720 x 1440dpi VD :		
		1440 x 1440dpi vD.		
nk	4-color set installed	M. C. Y. K (SS21) / M. BL Y. K	(Sb53*1)	Total 8 cartridges with IC chip
	6-color set installed	M, Bl, Y, DK, Lm. Lbl (Sb53*1)	·····	installed
	8-color set installed	M, C, Y, K, Lm, Lc, Or, Lk (SS2	1*2)	*1:Std model; Available by a
	6-color +W set	M, C, Y, K, Lm, Lc, W, W (SS21	1*2)	parameter change
	installed			*2:Not available for aq model
	6-color +W · Si set installed	M, C, Y, K, Lm, Lc, W, Si (SS21	*2)	
Ink supply		For 4-color and 6-color M, Bl on		
		by installing 2 cartridges (ca		
		printing)		
nk opposity	A color set installed	Two 440 as astridges for each a		
lik capacity	M and Bl in 6-color	1 wo 440-ce cartiluges for each e		
set installed				
	Except above set	One 440-cc cartridges for M,C,Y		
	installed	each co		
		One 220-cc cartridges for W,Si e		
x 11 - 4	ļ	color		
Media that can	be used	Label media (paper-based), PV		
		more than 0.25 mm thick), fluc		
		(except high-brightness reflects		
Maximum pri	nting width	1361 mm	1610 mm	When the minimum right and left non-printing areas are set
Madic an	Moving and 141	1271 mm	1620 mm	r ganna are out
vieula specs	waximum width	15/1 11111		
	Minimum width	210 mm		
	Thickness	1.0 mm or less		
	Roll O. D.	Paper media: $\phi 250$ mm or less Other media: $\phi 210$ mm or less		
	Roll weight	40 kg or less		
Paper sleeve I. D.		2 inches or 3 inches (only 3 inc	ches for fast speed mode)	
	Printing surface	Side facing inward or outward	(available to both)	
	Take-up processing	Roll end fixed with adhesive ta	ape or weak glue	
Print margin	Roll	Left/Right:15 mm (default value))	Tolerance excluding media inclined
		Front: 120 mm	/	pass is ±2mm
		Back: 150 mm		The left and right margins can be
	Cut sheet	Left/Right:15 mm (default value)	changed
		Front: 120 mm		
		Dack. IJUIIIII		1

2 3

Rev.

1.0

Issued 2014.09.15 Revised CJV300

Model 3.1.2 Main Unit Specification (for 300 series)

Rev. 1.0

1

2

3

	-	Specific		
	Item	CJV300-130	CJV300-160	Remarks
Origin positio (LED pointer)	n matching)	Positioning by the LED pointer i • Pointer is used when printing o value	mounted on the head actuator origin is changed from default	
Distance	Absolute accuracy	± 0.3 mm or $\pm 0.3\%$ of specified dis	tance, whichever is larger	Excluding test media photo paper glossy
accuracy	Repeatability	± 0.2 mm or $\pm 0.1\%$ of specified dis	stance, whichever is larger	paper contraction and expansions Excluding initial meandering
Squareness		±0.5 mm/1000 mm		
Media skew		5 mm or less/10 m		
Print gap		Manual 3 step adjustment(2.0/2.5/2 at install,	3.0) +1mm or +2mm, selection	
Media heater		PRE/PRINT/AFTER :60 / 60 / 60 3 system independently control		
MCT		2 path installed		
UISS		Installed		
Washing cartric	lge	Installed		
NCU (nozzle n	nissing detect)	Installed		
Media severing	5	Y-axis cut by head cutter Severing precision (misalignment)	0.5 mm or less	Cutting tool is an expendable item.
Waste ink tank		Bottle type (2000 ml)		
Image decomp	ression memory	SD-RAM 256MB		
Interface	Mounted standard	USB2.0 Ethernet: 100BASE-TX (For outpu	ut printing status)	* Cable supplied
Command		MRL-IV		
MAPS		MAPS3		
Displayable lar	nguage	Japanese/English		
Noise Standby During operation		51 dB or less. (FAST-A, at 1 m f left side of the machine)		
		65 dB or less		
	Discontinuous operation	75 dB or less		
Compliance with standards		 1)VCCI class A 2)FCC class A 3)UL 60950-1 4)CE Marking (EMC Directive , Low Voltage Directive and Machinery Detective) 5)CB report 6)RoHs REACH, Energy Star 		
Power supply consumption	and power	AC100 to 120 V 1440 W or less less, 50/60 Hz±1 Hz	, AC220 to 240 V 1920 W or	 Input manual switching With remote SW function With sleep function mode
		Inlet2: heater (pre / print)		-
Power consun	nption	1440 W x 2 (AC100 - 120 V) or	less	Main unit, including heater excluding options
Ambient con- ditions	Service temperature range	20 °C - 35 °C		Ink discharge stability can drop under any ambient conditions
	Relative humidity	35 % - 65 % Rh (no condensatio	n)	exceeding the specified limits.
	Quality assurance temperature	20 °C - 25 °C		
	Temperature gradient	±10 °C/h or less		
	Dust	0.15 mg/m^3 (Equivalent to the at	tmosphere in offices)	
Option		1)Drying Fan unit (Use separate 2)Sticking prevention net 3)AMF unit (Standard installed	ly power supply) for aq model)	

3.1.2 Main Unit Specification (for 300 series)

Itom	Specif	Romarks		
ittii	CJV300-130	CJV300-160	ixtinai kš	
Weight	Main body:167 kg No legs: 136 kg Packing:220 kg	Main body:178 kg No legs: 146 kg Packing:235 kg		
Dimensions (W x D x H)	2525 x 700(930*4) x 1392 mm Packing:2662 x 750 x 1050 mm	2775 x 700(930*4) x 1392 mm Packing:2662 x 750 x 1050 mm	*4:AMF device is included	

2

1

1.0

CJV150/300 Issued 2014.09.15 Revised

F/W ver Remark

3.1.3 Specifications for Cutting Section

■ Specifications

No.	Ite	em	Specification	1	Remarks		
			CJV150/300				
1	Cutting hea	nd	 Up and down by the cutter solence Provided with mark sensor	Cutter head is also equipped with LED pointer and severing cutter blade			
2	Cutting spe acceleratio	eed and n	Speed: 30 cm/s max. Acceleration: 1 G max.		1 - 10 cm/s : in steps of 1 cm/s 10 - 30 cm/s : in steps of 5 cm/s		
					• The maximum speed may be limited depend- ing on the media size.		
					• The maximum speed and the maximum acceleration are not available at the same time.		
3	Cutting pre	ssure	10 - 350 g		10 - 20 g : in steps of 2 g 20 - 100 g : in steps of 5 g 100 - 350 g : in steps of 10 g		
4	Pens that c	an be used	Eccentric cutterWater-based ball-point pen		For writing with a pen: • Install the pen line sheet.		
			 Oil-based ball-point pen Commercially available ball-point pen for handwriting 		 The pressure must not exceed 150 g. With a commercially available ball-point pen Use a pen whose diameter is \$\$ to \$\$ 09 mm and which is free from bumps or taper in the area to be clamped. 		
					• The image quality is not guaranteed because the pen tip position differs depending on the pen.		
5	Cutter resp	onse count	10 times/sec				
6	Type of rec	ommended	PVC sheet (Thickness: 0.25 mm		* Based on our specified media		
	media		 or less *) Fluorescent sheet Reflective sheet (except high intensity reflective sheet) 	Heat transfer rubber sheet			
7	Non-cut- ting area	Cut sheet	Outside the inner edge of pinch roll Front: 40.0 mm Tail: 98.5 mm	er (default value)	Cutting area in the lateral direction: Normal: Inside the inner edge of pinch roller		
		Roll	Outside the inner edge of pinch roller (default value) Front: 40.0 mm Tail: 0.0 mm		EXPANDS: Inside the outer edge of pinch roller EXPANDS = Normal +10 mm x 2		
8	Repetition	accuracy	± 0.2 mm (Excluding the expansion film caused by temperature)	and contraction of the	Refer to "Conditions for ensuring the repetition accuracy" below.		
9	Receive bu ory	ffer mem-	SD-RAM 30MB		20MB when sorting is active		
10	Command		MGL-II c2		MGL-I c1 is not supported		
11	Program st	ep	MGL-II c2: 25 µm, 10 µm				
12	Others		Die cutting (Perforation cutting)		Use of dedicated pen line sponge is necessary for die cutting.		

2

Rev.

1.0

CJV150/300 Issued 2014.09.15 Revised

3.1.3 Specifications for Cutting Section

Conditions for ensuring the repetition accuracy

Item	Conditions
Plotter condition	Clamp pressure: High
Media setting	Side margin of the media: 20 mm or more
	• Front end of the media: No warp or rising
	• No separation of the media from the base paper (no air bubbles between them), which can be caused by bending of the media
	• The media must be loaded properly using the media feed function.
	• The roll media must be free from loose rolling. (The right and left end faces must be flat.)
Cutting speed	• 30 cm/s or less (when the supplied cutter is used)
Cutting data	• Test pattern for maintenance (Successive 10 round trips in the longitudinal direction)
	• No separation of the media from the base paper (no air bubbles between them) during cutting, which can be caused by bending of the media

2

1

Rev.

1.0

Service Documents > Basic Specification > Main Unit Specification > Specifications for Ink						Pov	
Model	CJV150/300	Issued 2014.09.15	Revised	F/W ver	Remark		Rev.
3.	3.1.4 Specifications for Ink						1.0

Specifications

No	т	tom	Specifi	cation			
110.	1	tem	SS21 (Solvent ink)	Sb53 (Aqueous sublimation transfer ink)			
1	Supported m	odel	Std model	Std model ^{*1} , aq model			
2	Supply		Dedicated ink cartridge				
3	Ink color		• Black (K)	• Black (K)			
			• Cyan (C)	• Blue (Bl)			
			• Magenta (M)	• Magenta (M)			
			• Yellow (Y)	• Yellow (Y)			
			• Light cyan (Lc)	• Light blue (Lbl)			
			• Light magenta (Lm)	• Light magenta (Lm)			
			• Orange (Or)	• Dark black (DK)			
			• Light black (Lk)				
			• White (W)				
			• Silver (Si)				
4	Ink capacity		220/440cc cartridge	440cc cartridge			
5	Available per	riod	The period is printed on the ink cartridge.				
6	Storage	Storage	10 to 35 °C (Daily mean temperature)				
	temperature		* Keep the package sealed.				
			* Keep the package in the dark cold place wh	ere is dried and well-ventilated.			
		Transportation	0 to 40 °C				
			* Avoid passing a place where temperature is lo	wer than 0 °C or higher than 40 °C.			

*1. Available by a parameter change. But it does not support CJV150-75.



• The warranty is not applicable if any of the ink cartridges was disassembled or refilled with ink. Do not use any ink cartridge disassembled once or refilled.

• The ink may freeze when it is left for a long time in a cold environment.

• For the water-based ink, if the ink has frozen, it cannot be used any more by changing in quality. Be sure to keep the ink cartridge in the condition that the ink does not freeze.

1

2

3

		Basic Specification	
3.1 Main Unit Specification	3.2 PC Specification	3.3 Output Speed	3
3.4 Ink Consumption			Λ

		Basic Specification	6
3.1 Main Unit Specification	3.2 PC Specification	3.3 Output Speed	5
3.4 Ink Consumption			

2

© 2014 MIMAKI ENGINEERING CO.,LTD.

		Basic Specification	2
3.1 Main Unit Specification	3.2 PC Specification	3.3 Output Speed	3
3.4 Ink Consumption		_	Δ

2

1

Technical Information 4.2 4.3 **Basic Information Regular Maintenance About Print Quality**

4.4 **Essential Information** for Service

4.1

Service Documents > Technical Information > Basic Information > Service Mode and Specialized Key							,	Po		
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	1.10	Remark			I C
4.1.1 Service Mode and Specialized Key						1.				

■ Indication on LCD

In normal mode	
CJV300-160 V1.00	start-up

Outline

For troubleshooting or maintenance work, the machine needs to be operated in service mode. The following describes the Specialized Key functions which start this machine in service-related mode.

■ Specialized Key Functions

After the start of the machine, press the specific key(s) on the operation panel while the version information is displayed. Then the machine will enter the corresponding one of the following service-related modes.

Service-related mode	How to enter	Remarks
F/W Update	(While version information is displayed) Press [ENTER]	 Receives FirmwareROM data from the host PC via USB2.0 I/F, and updates the firmware of the main PCB. Available only when the machine is started by turning on the main power. After firmware update, restart the machine by turning the main power.
Parameter UP/DOWNLOAD	(While version information is displayed) Press [▲]+[▼]	 Uploads the parameters and log data from the machine to the host PC via USB2.0 I/F. Downloads the parameters and log data from the host PC to the machine via USEB2.0 I/F.
System Parameter input	(While version information is displayed) Press [◀]+[▶]	 Start the machine in [SYSTEM PARAM.] input mode of [#PARAMETER]. When the machine cannot start because of a parameter hash error or the like, the parameters can be initialized in this mode. When the machine cannot be operated because of a system down error or the like, input the system parameter No. 45 HASH 0 → 1 or 2 in this mode. Then the machine can be started for the purpose of checking for problem.
Service mode	(While version information is displayed) Press [FUNC1]+[FUNC3]	Active until the power to the machine is turned off.
	System parameter SUPPORT $0 \rightarrow 2$ (3: English version)	Active until the value of the system parameter No. 122 SUPPORT is changed to 0.
When installing the device-specific F/W into new product main- tenance PCB (common PCB)	(While version information is displayed) Press [FUNC2]	Install the device-specific F/W into new product maintenance PCB (common PCB).

■ Service Mode

For maintenance work, start the machine in service mode. Then you can use the functions that are not available in normal mode. As for those functions, the "#" mark is added at the head of the function name.

Δ

1

Service Documents > Technical Information > Basic Information > F/W Update							
4.1.2 F/W Upda	ite			1.0			
■ Indication on LCD							
		0					
• Ready for ROM data reception	2 ROM data being received	S ROM data receiving has been completed	• ROM data being overwritten				
F/W UPDATING *TRANSMIT START*	*TRANSMIT START* S recieving	TYPE:HOST->MAIN ver :1.00->*.**	ver :1.00->*.** writing F/W				

Outline

Using FW Version Upgrade function of FW Update Tool III, perform version upgrade of JV300 series. For FW Update Tool III, refer to "FW Update Tool III User's Manual".

■ Update procedure



Do not turn OFF the power supply during the program is being written into the memory. Once overwriting fails, the main PCB must be replaced with a new one for recovery.

F/W update can be canceled by turning off the main power in the stage where the indication on the LCD is as shown at $\mathbf{0}$.

□ Normal version upgrade of F/W

Step	Operation	Description	Indication on LCD			
1	Main power ON+[ENTER]	 Machine starts in F/W update mode □ When replacing maintenance PCB, perform this first. The main circuit board described below is the common parts for several models. When such board is delivered, written firmware is not for specified model, but the common to each model. Part codes: E000019 EPL2 Main PCB Assy. LCD indication after the startup: Ep12Mb Start-up Ver.x.xx 				
		Ready for ROM data reception	0			
2	Version up file trans-	Using Version Upgrade function of FW Update Tool III, send the version up file.				
	mission	Data being received	0			
		Data receiving has been completed. Press the [ENTER] key. *In case that system parameter "SUPPORT" is "o", the program shifts writing automatically.	6			
		The program is written into the memory.				
3	Main power OFF	Update work completed *In case that system parameter "SUPPORT" is "o", the Parameter Up/Download is displayed.				

3

Service Documents > Technical Information > Basic Information > Parameter Up/Download							Po	v			
Model	CJV150/300	Issued	2014.09.15	Revised	F/W	V ver	1.10	Remark		i.e	۷.
4	1.3 Para	met	er Up/	Do	wnload					1.	0

Indication on LCD



■ Upload procedure (machine → host PC)

Step	Operation	Description	Indication on LCD
1	Power ON+[\blacktriangle]+[\checkmark]	Machine starts in Parameter Up/Download mode.	
		Ready for Up/Download	0
2	Parameter upload	Uploads parameter data to the host PC. ^{*1}	
		Uploading	0
		Up/Download completed	4
3	Power OFF	Parameter upload completed	

*1.How to upload the LOG file:

LOG files can be uploaded by uploading the files on the "LCD **O**" screen with the [ENTER] key on the main unit operation panel pressed.

■ Download procedure (machine ← host PC)

Step	Operation	Description	Indication on LCD
1	Power ON+[\blacktriangle]+[\checkmark]	Machine starts in Parameter Up/Download mode.	
		Ready for Up/Download	0
2	Parameter download	Downloads parameter data to the host PC.	
		Downloading	₿
		Up/Download completed	4
3	Power OFF	Parameter download completed	

2

3

Δ

Service	Service Documents > Technical Information > Basic Information > Parameter Function							
Model	CJV150/300	Issued 2014.09.	15 Revised	F/W ver	1.10	Remark		Nev.
4.	1.4 Para	meter Fi	unction					1.0

Outline

With the PARAMETER function, you can check and set parameters on the machine. (Available in service mode)



Be sure to upload parameters before changing them. There is a possibility that input errors may make recovery impossible.

Parameter function items

No.	Item	Description	Change
1	SYSTEM PARAMETER	A group of parameters as a storage of adjusted values for each machine (printing)	Partially permitted
2	MAINTENANCE PARAMETER	A group of parameters for firmware debugging and assessment in the development stage	Partially permitted
3	SERVO PARAMETER	A group of parameters for XY motor control.	Disap- prove ^{*1}
4	FEED PARAMETER	A group of parameters for feed control.	Disap- prove
5	HEAD PARAMETER	A group of parameters to save the dot position correction and the head voltage (correction value)	Permitted
6	OPE PARAMETER	A group of parameters for operation control.	Disap- prove
7	INK PARAMETER1	A group of parameters as a storage of the operation status of the machine	Partially permitted
8	INK PARAMETER2	Parameters for control of function related to ink system.	Disap- prove
9	DEBUG PARAMETER	Parameters for evaluation of debug in development	Disap- prove
10	SCAN PARAMETER	A group of parameters for scan control.	Disap- prove
11	NOZZLE RECOVERY PARAM- ETER	Parameters to save nozzle numbers registered at nozzle recovery	Disap- prove

*1.Do not change the disapprove parameter without instructions from developer.

1

2

3

Δ

Service Documents > Technical Information > Basic Information > Important Parameter								Pov		
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	1.1	10	Remark		IXEV.
4	1.5 Impo	ortar	nt Para	ame	eter					1.0

Outline

This section shows the parameters necessary in repair and verification work.

■ Important parameters

□ SYSTEM PARAMETER

No.	Display	Initial Value	Adjusted Value	Description	Unit	Input Range
007	FLSposY	0		Flushing Y position adjustment	0.1mm	-200~200
008	CapPosY	0		Capping Y position adjustment	0.1mm	-200~200
009	WipPosY	0		Wiping Y position adjustment	0.1mm	-200~200
032	INK SET	0		Ink set 0 :MMCCYYKK :SS21 0 :MMCCYYKK :BS3 2 :MWCWYLmKLc :SS21 4 :MMBBYYKK :Sb53 6 :MMBBYLmKLb :Sb53 7 :MSiCWYLmKLc :SS21 8 :MOrCLkYLmKLc :SS21 M;Magenta, C;Cyan, Y;Yellow, K;Balck, W;White, Lm;Light magenta, Lc;Light cyan, B;Blue, Lb;Light blue, Si;Silver, Or;Orange, Lk;Light black Signitume	codes	0x0000 ~0x00ff
109	AirVacY	0		Air vacuum Y position adjustment	Pulses	-200~200
124	MECASIZ	6		Mecha size 6: 130, 7: 160	codes	0~10
129	SUPPORT	0		Adjustment functionality expansion 2: Adjustment functionality expansion 3: Adjustment functionality expansion + English	codes	0~2
130	INITIAL	0		Initialization 1: All parameters (1: 2 head machine, 2: 1 head machine) 10: Restore from FROM to EEPROM (Not used) 11~:Parameter initialized at update (11: 2 head machine, 12: 1 head machine) 20: Reserve 21~:System parameter and Operation parameter (21: 2 head machine, 22: 1 head machine)	codes	0~255

□ INK PARAMETER1

No.	Display	Initial Value	Adjusted Value	Description	Unit	Input Range
000	INKSET	0x0000		Initial filling performing flag: Bit allocation ^0=Head 1 \sim ^7=8		0~255
256	SubsSW	1		Filling fluid filling (for initial filling) execution flag 1=Execute		0~1

□ HEAD PARAMETER

Drop position adjusting value has been saved.

For details, refer to the parameter list.

CUT SYSTEM PARAMETER

No.	Display	Initial Value	Adjusted Value	Description	Unit	Input Range
2	ANGLE	0		Right-angle compensation value		-40 to 40
21	PTRofxX	0		Pointer offset X [in units of 0.1 mm]	0.1mm	-100 to 100
22	PTRofsY	0		Pointer offset Y [in units of 0.1 mm]	0.1mm	-100 to 100
24	SENS.A	0		Photo sensor position adjustment X	0.1mm	-100 to 100
25	SENS.B	0		Photo sensor position adjustment Y	0.1mm	-100 to 100
26	P>COTSX	0		Print head \rightarrow cut head origin position adjustment X	0.1mm	-100 to 100
27	P>COTSY	0		Print head \rightarrow cut head origin position adjustment Y	0.1mm	-100 to 100
30	CUT.OVL	1000		Cutting overrun distance (Left) (Cut offset from the leftmost pinch roller)	0.1mm	-1000 to 2000

1

2

Service Documents > Technical Information > Basic Information > Important Parameter	Rov
Model CJV150/300 Issued 2014.09.15 Revised F/W ver 1.10 Remark	T(C)

4.1.5 Important Parameter

No.	Display	Initial Value	Adjusted Value	Description	Unit	Input Range
31	CUT.OVR	200		Cutting overrun distance (Right) (Cut offset from the rightmost pinch roller)	0.1mm	-1000 to 500
36	WinAJST	0		Take-up motor running time adjustment in cutting mode	S	-10 to 60
37	CLKAJST	0		Adjusted value for lock position of cutting head clamp (fine adjustment)	0.1mm	-100 to 100
40	TPlimtX	5000		X-axis limit length at registration mark detection (12,000 mm max.)	mm	1000 to 12000
53	HOME X	0		Front end non-printing area adjustment		-50 to 50
54	CUT ADJ	10		Automatic cut position correction		-50 to 50

3

1

1.0

Model CJV300-130/160 Issued 2014.09.15 Revised

F/W ver 1.10 Remark

4.1.6 F/W update procedure after the replacement of the main circuit board

Outline

This section shows the procedure for F/W updating after the replacement of the main circuit board.

■ Update procedure

Step	Operation	Description	Г	
1	Parameter upload	Refer to "4.1.3 Parameter Up/Download"		
2	Replace the main PCB	Replace the main PCB		1
3	Power ON	Turn the power ON		
4	F/W update	Update F/M to the same version of F/W when uploading the parameter. Refer to "4.1.2 F/W Update"		
5	Initial the SYSTEM PARAMETER	Input system parameter INITIAL= "1" for initializing all parameters. ^{*1}		
6	Parameter download	Download the parameter that is uploaded on the above step "1". Refer to "4.1.3 Parameter Up/Download"		2

*1.Make sure all parameters are initialized

3

Rev.

1.0

	Tec	hnical Information
4.1 Basic Information	4.2 Regular Maintenance	4.3 About Print Quality
4.4 Essential Information for Service		

Servic	e Documents > Teo	chnical Information > Regular Main	tenance > Periodic	Check Items		
Service Documents > Technical Information > Regular Maintenance > Periodic Check Items Rev. Model CJV150/300 Issued 2014.09.15 Revised F/W ver Remark 1.0					\ev.	
4	2.1 Perio	odic Check Items	5		1	.0

■ Outline

This section shows the periodical maintenance work items recommended to keep the machine in good condition.

Periodic Check Items

Item	Sub Item	Remarks	See	
Checking the	1 Upload of parameters			
machine condition	2 Update of firmware	Old Ver.: New Ver.:		1
	3 Checking the result of user's care			
	a Area around the heads			
	b Station		4.2.2	
	c Media holder, platen, etc.			2
	4 Head condition	Test drawing:		
		Head adjustment: Inclination Ink drop position		
Regularly replaced	1 Tube Pump Assy			9
parts	2 Select Path Pump Assy			5
	3 Cap Head Assy			
	4 Wiper Slider		4.2.3	
	5 Wiper Cleaner Assy			
	6 CP pad Assy			4
	7 Pressure Damper			
Greasing	1 Clamp Lever			
	2 Clamp Cams		4.2.4	
	3 Cap Slider			
Checking	1 Sensor test			
	2 Operation test			
	3 Linear encoder test			
	4 Replace counter			
	a Hours of machine use	Value: [h]	4.2.5	
	b Drawing area	Value: [m ²]	4.2.3	
	c Drawing length	Value: [m]		
	d Scan count	Value: [times]		
	5 Upload of parameters			
	6 Checking online drawing			

CJV150/300 Issued 2014.09.15 Revised

4.2.2 Checking the Machine Condition

Outline

Model

This section shows the work items for understanding the machine condition at the beginning of work and solving the current problems.

Work items

For cleaning the sensors and covers, do not use any organic solvent, such as alcohol or Solvent Washing Liquid. An organic solvent can liquefy resin and paint, thus causing a machine failure or flaw in appearance.

F/W ver

One head is installed for 150 series



1. Upload the parameters to store the parameters of the machine.

Remark

- 2. When the firmware of the machine is not the latest version, update the firmware.
- 3. Check the result of user's maintenance with attention paid to the following points:
 - \Box Area around the heads

Check for ink sticking or dust accumulation. If necessary, tell the user the cleaning method which uses Solvent Washing Liquid or Clean Stick.

□ Station

Check the areas around the caps and wipers for ink sticking or dust accumulation. If necessary, tell the user the cleaning method which uses Solvent Washing Liquid or Clean Stick.

□ Media holder, platen, etc.

Check the following parts for paper dust accumulation or ink sticking.

If necessary, tell the user the cleaning method which uses natural detergent, waste cloth, or Clean Stick.

- Media Holder
- Platen
- PF Roller
- Media sensor (Two locations: back right and center)
- Cover
- Waste Ink Tank (volume of empty space)
- 4. Execute test drawing and check the head condition (for nozzle clogging or jet deviation).

Perform slant adjustment and/or drop position adjustment, if necessary.







1

2

3

Δ

Rev.

1.0





Outline

Check the Regularly Replaced Parts with attention paid to the following points:

- Is there a possibility that trouble may occur in ink suction or wiper replacement work because user maintenance is inadequate and thus the machine is badly stained?
- Is the rubber of the cap head deformed?
- Can the stain, such as ink sticking, be removed completely?
- Are there any parts worn significantly?

No.1	Tube Pump Assy.	No.2	Select Path Pump Assy	No.3	Cap Head Assy.
No.4	Wiper Slider	No.5	Wiper Cleaner Assy.	No.6	CP Pad Assy.
(111		a de la constante de la consta	

Regularly replaced parts

1

2

Service	e Documents > Tec	hnical Information > Regular Main	tenance > Regularl	y Replaced Parts		Pov
Model CJV150/300 Issued 2014.09.15 Revised F/W ver Remark						NEV.
4.	2.3 Regu	larly Replaced	Parts		1	1.0



© 2014 MIMAKI ENGINEERING CO.,LTD.

Service	e Documents > Tec	hnical li	nformation >	Regular M	laintenance > Greasing		Pov
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	Remark	IXEV.
4.	del CJV150/300 Issued 2014.09. 4.2.4 Greasing		g				1.0

Outline

This section shows the parts to be greased periodically to suppress abrasion or abnormal sound during machine operation.

Parts to be greased





Service Documents > Technical Information > Regular Maintenance > Checking Remark Remark Model CJV150/300 Issued 2014.09.15 Revised F/W ver Remark 1.0 4.2.5 Checking 1.0 1.0 1.0 1.0								
Model	CJV150/300	Issued	2014.09.15	Revised	F/W ver	Remark		.ev.
4.	2.5 Chec	kin	g				1	.0

■ Outline

For the various sensors, fans, motors, etc., this section shows the work items for checking the use to date and inspections.

Checking items

No.	Item	Description	
1	Sensor test	Perform all items defined in Sensor Check and make sure that there is no problem.	
2	Operating test	Perform all items defined in Operating Test and make sure that there is no problem.	
3	Linear encoder test	Perform linear encoder test and make sure that there is no problem.	
4	Checking the REPLACE COUNTER	Check the REPLACE COUNTER and note down the following records. a. Hours of machine use b. Drawing area c. Drawing length d. Scan count	2
5	Upload of parameters	Once adjusted values or settings are changed, upload the parameters again.	
6	Checking online drawing	Finally, perform test drawing and online drawing and make sure that there is no problem.	

	Technical Information	
4.1 Basic Information	4.2 Regular Maintenance	4.3 About Print Quality
4.4 Essential Information for Service		

	Technical Information		
4.1 Basic Information	4.2 Regular Maintenance	4.3 About Print Quality	
4.4 Essential Information for Service		·	

Mimaki

