MUTCH RJ-900C series INSTALLATION MANUAL

Please read this manual before using

Thank you for purchasing a MUTOH product.

This manual explains the steps for unpacking, mounting and basic installation before using the MUTOH Full-color inkjet plotter RJ-900C series.

This manual is intended for owners, installers, and users of this product.

Understand the contents and instructions in this manual before installing this product.

Installation flow chart

The broad steps for installation are shown below.

Follow the instructions beginning on the next page.

• The stand for RJ-901C is an option.





3 Assembling

- 3.1 The stand assembling procedure
- 3.2 Assembling the stand



3.3 Detaching protective materials



- 4 Installation
- 4.1 Installation environment
- 4.2 Installation procedure



┍ When using the plotter only (RJ-901C only)





- 9 Check the printing condition
- 10 Installing the software
- **11** The attached software provided
- 12 Manual composition

1 Unpacking boxes

Procedures for unpacking boxes are explained. This product is packaged separately, divided into the plotter and the stand.

- Unpacking this product requires the following number of people.
 - RJ-901C : Two or more
 - RJ-900C : Three or more
- While taking out the plotter from the box, make sure to remove the vinyl sheet and hold the handles on the plotter side. If the plotter is lifted with the vinyl sheet attached, there is a possibility that the plotter might slip from your hands and be damaged.

1.1 Unpacking plotter box

Unpack the plotter box in accordance with the following steps.

- 1. Carry the box to where you will unpack it.
- 2. Remove the bands.
- 3. Open the box and take out the following components.
 - Installation Manual (this manual)
 - Attachment box
 - Scroller



No.	Name	No.	Name
1	Plotter box	5	Attachment box
2	Scroller	6	Installation Manual
3	Packing material		(this manual)
4	Handles (RJ-901C only)		

1.2 Unpacking stand box

Unpack the stand box in accordance with the following steps.

- 1. Carry the box to where you will unpack it.
- $2. \quad \text{Open the box and take out the components.}$

2 Confirming bundled items

After unpacking, please confirm that the product has not damaged and no components are missing.

NOTE

• If any items are damaged or missing, contact MUTOH local dealer.

2.1 Items in the plotter box

(1) RJ-901C





No.	Name	Q'ty
1	Plotter main body	1 set
2	A1 Scroller 2 inch	1
3	Installation Manual (this manual)	1

(2) RJ-900C



No.	Name	Q'ty
1	Plotter main body	1 set
2	A0 Scroller 2 inch	1
3	Installation Manual (this manual)	1

2.2 Items in the attachment box



No.	Name	Q'ty
1	Power cable	1
2	Ink cartridge (1 set)	1 each
3	Operation Manual CD	1
4	Quick Reference	1
5	Plotter driver CD	1

2.3 Items in the stand box





No.	Name	Q'ty
1	Left support	1
2	Right support	1
3	Caster section (left, right)	2
4	Central beam	1
5 Arm holder		2
6	6 Hanger arm	
7	7 Book holder	
8	Media output tray	1
9	Hexagon socket head cap screw	8
10	Butterfly bolt	2
11	Hexagonal wrench	1

3 Assembling

Procedures for assembling this product are explained.

• Unpacking this product requires the

- following number of people.
- RJ-901C : Two or more
 RJ-900C : Three or more
- RJ-900C . Three of more

3.1 The stand assembling procedure

If you will use the stand, assemble it in accordance with the following steps.

- 1. Follow the steps shown below to assemble the right side of the stand.
 - a. Attach the right support to the caster section.
 - b. Fasten two hexagon socket head cap screws with the enclosed hexagonal wrench.



No.	Name	No.	Name
1	Right support	4	Hexagon socket head cap
2	Caster lock		screws
3	Caster section		

 Assemble the left side of the stand in a similar way to step 1.



No.	Name	No.	Name
1	Lerft support	4	Hexagon socket head cap
2	Caster lock		screws
3	Caster section		

- 3. Follow the steps shown below to attach the central beam to the legs (left, right).
 - a. Attach the central beam and four hexagon socket head cap screws to the stand (the left, the right).
 - b. Fasten the hexagon socket head cap screws with the enclosed hexagonal wrench, and fasten the central beam.



4. Attach two arm holders to the legs (left, right).



1	Arm holder		3	Leg (right)
2	Leg (left)			
		_		

5. Attach two hanger arms to the arm holders.



No.	Name	No.	Name
1	Hanger arms	2	Arm holder

6. Attach the media output tray as shown below.



•	riunger unn	2	i ti ili iloitaei
2	Media output tray		

7. Attach the book holder to the right side of the stand.



8. Confirm that each component is fastened firmly by gently shaking the stand.

3.2 Assembling the stand

Attach the stand to the plotter in accordance with the following steps.

1. Lock two casters on the front side.



No.	Name	No.	Name
1	Casters	2	Caster locks

2. Lift the plotter main body, and align the rear side rubber feet to the holes of the stand.







No.	Name	No.	Name
1	Plotter main body	2	Holes of the stand

- 3. Attach two butterfly bolts to the stand.
- 4. Secure the plotter to the stand by bolting the butterfly bolts.



This completes assembling of the stand.

3.3 Detaching protective materials

This product has protective materials in the place shown below.

Detach all protective materials in accordance with the following steps.

- 1. Remove all tapes from each cover.
- Open the front cover and unscrew the butterfly screws, and detach the fixing head unit protective materials (metal plate).



No.	Name	No.	Name
1	Fixing head unit protective materials (metal plate)	2	Butterfly screw

This completes detaching protective materials.

4 Installation

Procedures and environment for installing this product are explained.

4.1 Installation environment

Install this product to the appropriate place with reference to the following.

A WARNING

- Do not install the plotter in the following places where there is a possibility that the plotter may be damaged or might fall or be fallen by chance.
 - · On a shaky stand
 - · Slanting location
 - Places where vibration of other machines etc. is transmitted.
- Do not stamp on the plotter or do not place heavy things on top of it. The plotter may be damaged or might fall or be fallen by chance.
- Cover the plotter with blanket and cloth like tablecloth and do not close the vent. If the vent is closed, the plotter could accumulate heat inside and may cause fire.
- Do not install the plotter in a location that has high humidity or is dusty. It could lead to electric shock and fire.

Floor strength of installation place		More than 2940 Pa (300 kg/m ²)
Power Specifica-	Power Supply	AC90V - 132V/198V - 264V
uon	Frequency Range	$50/60$ Hz ± 1 Hz
	Power capacity	More than 10 A
Environm- ental	Operative condition	Temperature:10 °C-35 °C Humidity: 20 % - 80 %, No Condensation
conditions	Guaranteed range of printing accuracy	Temperature:15 °C - 2 8°C Humidity: 40 % - 60 %
	Change rate	Temperature: within 2 °C per hour Humidity: within 5 % per hour
	Archiving environment	Temperature:-20° C - 60 °C Humidity: 5 % - 85 % , No Condensation (Ink unfilled)

NOTE

- For temperature and humidity, avoid locations such as the following. There is a possibility that the print quality will be affected.
- Places where temperature or humidity may rapidly change, even though within the required conditions.
- Places that receive direct sunlight, increased illumination or direct air, for example from an air conditioner.
- To keep the temperature and humidity constant, install this product in a location where the air condition is adjustable.

4.1.2 Installation space

(1) When using the plotter with the stand Install on a level floor which meets the following condition.

 It has enough strength to support the weight of the plotter and the stand.

NOTE

• For the weight of the plotter and the stand, refer to the Operation Manual.



RJ-901C	RJ-900C
a=180mm	a=180mm
b=450mm	b=450mm
c=480mm	c=480mm
d=300mm	d=300mm
e=1198mm	e=1198mm

(2) When using the plotter only (RJ-901C only)

Install on a level table that meets the following conditions.

• The table has enough strength to support the weigh of the plotter.

NOTE

- For the weight of the plotter, refer to the Operation Manual.
- The required length for the sheet media is available in the back.
- The height from the floor is 600 mm to 800 mm.
- The space in the front is more than 300 mm.
- Printed sheets are not folded or dirtied.

4.1.3 Installation procedure

Install this product to the installation place in accordance with the list shown below.

(1) When using the plotter with the stand

NOTE

- Please check that the butterfly bolts are not loose before/after carrying this product.
- When transferring or carrying outside, separate the plotter and the stand.
- 1. Check that the two butterfly bolts attaching the stand and the plotter are not loose.
- 2. Carry the plotter to the installation place.
- 3. Lock two casters on the front side.



4. Check that the two butterfly bolts attaching the stand and the plotter are not loose.

(2) When using the plotter only (RJ-901C only)

1. Carry the plotter to the installation place.

NOTE

• When using the plotter only (without the stand), always arrange as shown below. There is a possibility that the printed sheets are affected or errors such as media jams occur.



No.	Name	No.	Name
1	Rubber feet		



5 Connecting the power cable

This section explains how to connect the power cable.

WARNING

- Make sure that the included power cable is used. If other power cables are used, it would cause an electric shock or fire.
- Do not use the damaged power cable. It would cause an electric shock or fire.

Follow the steps below to connect the power cable.

1. Confirm that the product is turned OFF.



NOTE

- If the [Power] key is pressed, the product is turned on. Press the key again, and turn off the power.
- 2. Connect the power cable to the AC inlet on the back of the product.



No.	Name	No.	Name
1	AC inlet	2	Power cable
-			

3. Correctly insert the power cable plug into the power socket.



No.	Name	No.	Name
1	Power cable		

6 Installing the ink cartridge

This section explains about how to install the ink cartridge.

While handling ink cartridges, be careful that the ink does not come into contact with your eyes or skin. If the ink got into your eyes or attached to the skin, immediately wash with water. Failing to do so may cause irritation and light inflammation of the eyes.

Follow the steps below to install the ink cartridge.

- 1. Turn ON the product.
- 2. The product starts the initial operation.
- The operation panel displays "[KCMY] cartridge".
- 3. Take out the ink cartridge from the bag.
- 4. Install the ink cartridge into the ink cartridge slot.
- Insert the ink cartridge into the product with mark upside.



No.	Name	No.	Name
1	Ink cartridge	4	Ink cartridge slot M
2	Ink cartridge slot K	5	Ink cartridge slot Y
3	Ink cartridge slot C		

- 5. "Ink Refill ** min" is displayed, and the ink starts to be filled.
- It takes about 5 minutes. In the initial operation, the product repeats ink filling and pausing.
- 6. If the ink finishes being filled, the operation panel displays "Paper End".

NOTE

- If the paper is printed just after the initial filling, the following conditions may occur.
 - The printed line is blurred.

• The white line appears on the prints.

In this case, follow the Operation Manual "5.2.3 Head cleaning", and clean the head two or three times, then check the print result.

If the result is not improved after the head cleaning, clean the head one more time after for an hour break, and check the print result.

If the result is not improved either, contact MUTOH local dealer.

7 Loading the roll media

This section explains about how to load the roll media. Follow the steps to load the media.

1. When using roll media of three-inch diameter media tube, the optional three-inch attachment should be used to the movable flange and fixed flange.



No.	Name	No.	Name
1	Movable flange	3	Three-inch attachment
2	Fixed flange		

- Load the roll media into the scroller so that the roll media gets winded up in the anti-clockwise direction in the view from the fixed flange side.
- Push the roll media completely until the roll media core hits the right edge of the fixed flange.





4. Attach the movable flange until it firmly sticks to the roll media core.



No.	Name	No.	Name
1	Movable flange	2	Roll media

5. Set the scroller onto the scroller receiver so that the fixed flange heads for the ink cartridge side.



No.	Name	No.	Name
1	Scroller	3	Ink cartridge slot
2	Fixed flange	4	Scroller receiver

Continued to the next page

RJ-900C series INSTALLATION MANUAL

From the previous page

- 6. Turn ON the product.
- 7. The product starts the initial operation.
- The operation panel displays "Paper End".
- 8. Select "Roll media" by pressing [Back] key on the operation panel.
- Roll media lamp lights up.



- 9. Push the media loading lever backward.
- · The operation panel displays "Lever Up".



No.	Name	No.	Name
1	Media loading lever		

10. Feed the roll media into the media feed slot.





11. Open the front cover, and pull out the roll media.



No.NameNo.Name1Front cover2Roll media

12. Wind back the roll media with scroller while pressing down the media edge, remove bending and slant of the media.



13. Return the media loading lever to your front.









- The operation panel displays the media type setup menu.
- 15. Press the [Setting value +] key or [Setting value -] key on the operation panel, and enter the selected number.



16. Press the [Enter] key on the operation panel.



- The media type is entered.
- The operation panel displays "Paper Initial", and media starts the initial operation.
- After finishing the media initial operation, the operation panel displays "Ready to Plot", and the product turns to a normal operation.
- 17. Wind back the roll media with scroller to remove bending and slant of the media.



• The media loading is complete.

8 Loading the sheet media

This section explains about how to load the sheet media. Follow the steps below to load the sheet media.

- 1. Turn ON the product.
- 2. The product starts the initial operation.
- The operation panel displays "Paper End".
- 3. Select "Sheet media" by pressing [Back] key on the operation panel.
- · Sheet media lamp lights up.



- 4. Push the media loading lever backward.
- The operation panel displays "Lever Up".





Open the front cover, and insert the sheet media in to the media feed slot.



No.	Name	No.	Name
1	Front cover	2	Sheet media
6	lion the right and of n	adia	to the media loading

 Align the right end of media to the media loading mark, and align the front edge to the step of platen respectively.

• If the sheet media right end shifts either to the right or the left from the loading mark, it would become as media loading error without media being detected. Load the media within the ±5 mm range from the loading mark.



Continued to the next page

From the previous page

7. Return the media loading lever to your front and close the front cover.



- The operation panel displays the media type setup menu.
- Set the media type as Step 15-16 in "7 Loading the roll media".
- When the media type is entered, the operation panel displays "Paper Initial", and media starts the initial operation.
- After finishing the media initial operation, the operation panel displays "Ready to Plot", and the product turns to a normal operation.
- The media loading is complete.

Media loading leve

9 Check the printing condition

Check the print head condition after ink initial filling.

1. Turn ON the power to the plotter, and set A3 or larger sheet media or roll media.

7 Loading the roll media

- 8 Loading the sheet media
- 2. Confirm that the plotter functions normally
- 3. Press the [Menu] key on the operation panel.



- It is displayed on the operation panel as "* Menu * TestPlot >".
- · The setup menu display will be displayed.
- 4. Press [Enter] key on the operation panel.



- · Operation panel displays "TestPlot: SetupPlot".
- · Display shifts to Test print menu.

 Press the [Setting value +] key or [Setting value-] key on the operation panel, select "Nozzle check" and press the [Enter] key.



- Perform the nozzle check printing.
- 6. Check the print sample and confirm that the checked points are blurred or missing.



- If the nozzle check result indicates that the checked points are blurred or missing, clean the head.
- Press the [Cleaning] key on the operation panel for at least 2 seconds.



- "Cleaning ** min" is displayed on the operation panel.
- 8. Start head cleaning.

NOTE

- Pressing the [Cleaning] key again within one printing after the 1st head cleaning performs strong cleaning. If print blurs or incomplete printing is not fixed by one head cleaning, perform strong cleaning.
- If several head cleanings does not remove print blur or incomplete printing, refer to the Operation Manual "6 Troubleshooting", and perform required procedures.
- 9. Perform the nozzle check again, and confirm the print head condition.

10 Installing the software

10.1 For network connection

This section explains how to connect to the Internet (TCP/IP).

- 1. Turn ON the power to the plotter.
- 2. Set the IP address for the plotter.



- Refer to "4.5.2.7 Network setup menu" in the Operation Manual for setting the IP address.
- Insert the network interface cable connector into the network interface connector located on the back of the plotter.



No.	Name	
1	Network interface cable	
2	Network interface connector	

4. Put the network interface cable to the cable clamp.



No.	Name	
1	Network interface connector	
2	Cable clamp	

- 5. Connect the another network interface cable connector to the PC.
- 6. Turn ON the power to the PC.
- Ensure that your PC boots up correctly, and insert the CD-ROM on which "Windows plotter driver" is written into the CD-ROM drive on your PC.
- Installer starts.

TIP

 For details about the installing, refer to "3.7.2 Installing the plotter driver (for network connection)" on the Quick Reference.



10.2 For USB connection

This section explains how to connect USB device.

NOTE

• Do not connect USB cable before installing the plotter driver. It cannot be correctly installed.

TIP

- USB connection supports Windows 98 and Windows 2000/XP.
- This plotter supports USB 2.0. If the connection is made in the following environments, the speed may
 - decrease to the level measured in USB 1.1.
 - When the USB connection is used in Windows 98
 - When your PC does not support USB 2.0
- When a USB hub of non USB 2.0 type is used • When using the plotter with USB connection, install
- the plotter driver into your PC using the plotter driver provided with the plotter or specified by our company.
- 1. Turn ON the power to the PC.
- 2. Ensure that your PC boots up correctly, and insert the CD-ROM on which "Windows plotter driver" is written into the CD-ROM drive on your PC.
- Installer starts.

TIP

• For details about installing, refer to "3.7.3 Installing the plotter driver (for USB connection)" on the Quick Reference.



- Connecting the USB cable
- 1. Insert the USB cable into the USB connector on the back of the plotter.



2. Put the USB cable to the cable clamp.



11 The attached software provided

This section explains software which needs to be installed.

11.1 Plotter driver

Plotter driver is used to print and output the print data created with Windows application software to the plotter.

11.1.1 Plotter driver

Set the following items in accordance with the procedures shown below.

- 1. Selecting the plotter driver
- 2. Setting the plotter driver

NOTE

• For the setup procedure of the plotter driver, refer to the attached help file. The file will be displayed by clicking [HELP] on the plotter driver setup screen.

11.1.2 Plotter driver setup items

The plotter driver setup items are described.

Setup items	Contents
Basic setup	Set up the basic setup of printing and check
	the setup list.
Advanced setup	Set up the advanced setting of printing condi-
	tions and check the setup list.
Options	Perform the setup relating to initialization,
	call, storage of set parameters and the check
	of the settings.
Utilities	Perform cleaning and activate status monitor.

TIP

- For details of setup items, refer to the attached help file.
- The file will be displayed by clicking [HELP] on the plotter driver setup screen.

11.2 Status monitor

When the OS of the computer connected to the plotter is Windows, status monitor can be used. It is used to check the status of the plotter from your PC. The status monitor has following functions.

- · Residual ink management
- Media information display
- · Plotter operation information display



No.	Name	Function
1	Plotter type	Plotter for which the operating state is to be checked is selected.
2	Residual ink quantity	Residual ink quantity of K, C, M and Y color is displayed.
3	Media information	Media type, residual quantity etc. are displayed.
4	Plotter information	Operating status of the plotter is displayed.
5	Update button	Clicking it updates to the latest information.
6	Finish button	Status monitor ends.

NOTE

 Do not take out or insert ink cartridge while the plotter is turned ON.

Doing so may not perform the correct detection of the remaining ink, and result in an abnormal printing.

12 Manual composition

This product includes the following three manuals.

- Installation Manual (this manual) This manual explains the procedures of unpacking, installing, and basic set up.
- Quick Reference

Quick Reference excerpts and explains the daily functions.

Operation Manual (CD-ROM)

Operation Manual explains the basic installation, daily use and applicable functions.

TIP

- The Operation Manual of the product is created in the HTML format and can be viewed using Internet Explorer etc.
- Refer to "5.5 Using Operation Manual CD" to see the Operation Manual.



MUTOH INDUSTRIES LTD. Tel.:81-(0)3-5486-7145 Fax:81-(0)3-5486-7163 E-mail:ibd@mutoh.co.jp http://www.mutoh.co.jp MUTOH AMERICA INC. Tel.:1-602-4144613 Fax:1-602-4144645 E-mail:sales@mutoh.com http://www.mutoh.com

MUTOH EUROPE N.V. Tel.:32-(0)59-807908 Fax:32-(0)59-807117 E-mail:mutoh@mutoh.be http://www.mutoh.be MUTOH DEUTSCHLAND GmbH. Tel.:49-(0)2159-913430 Fax:49-(0)2159-913456 E-mail:Mutoh-Sales@t-online.de