

JV3-160SP

Setup Guide

Table of contents

<i>For safe operation</i>	2
Pictorial signs	2
Example of pictorial signs	2
Precautions in installation	5
Precautions in use	6
Precautions in handling the ink cartridge	8
<i>Where to Install the Device</i>	9
<i>Unpacking and Assembling</i>	10
Assembling the pedestals and the device	10
Mounting the protection cover for 440cc ink cartridges	15
Assembling Rear Exhaust Duct	17
Assembling drier fan Unit	18
Assembling Front Exhaust Unit	19
Leading the exhaust hose to the left	24
If the roll screen spring has lost its elasticity	25
<i>Setting the heater voltage</i>	26
<i>Connecting the Cables</i>	27
Connecting the interface cable	27
Connecting the power cable	28
<i>Turning the power ON</i>	29
<i>Filling Ink for First Time</i>	30
<i>Turning the power OFF</i>	31
<i>Accessories</i>	32

MIMAKI ENGINEERING CO., LTD.

TKB Gotenyama Building, 5-9-41, Kitashinagawa, Shinagawa-ku, Tokyo 141-0001, Japan

Phone: +81-3-5420-8671 Fax: +81-3-5420-8687

URL: <http://www.mimaki.co.jp/>

E-mail: traiding@mimaki.co.jp

For safe operation

Pictorial signs

Pictorial signs are used in this Instruction Manual for safe operation of and in prevention of damages to the device. Pictorial signs and their meanings are given below. Read and fully understand before reading the text.



- Indicates the case where it is assumed that misuse of the machine, ignoring this sign, as this may cause fire or poisoning. Be sure to read this manual for proper operation.



- Indicates the case where it is assumed that misuse of the machine, ignoring this sign, can cause damage only to property.



- The symbol "💡" indicates helpful information that will facilitate the use of the device.



- Indicates the reference page for related contents.

Example of pictorial signs



- The symbol "⚠" indicates the case where some phenomenon that requires a CAUTION sign (including "DANGER" and "WARNING" signs) exists. A concrete precaution (precaution against an electric shock in the case of the sketch given on the left) is shown in the illustration.



- The symbol "⊘" indicates a prohibited behavior. A concrete illustration of prohibition (disassembly is prohibited in the sketch given on the left) is shown in or next to the illustration.



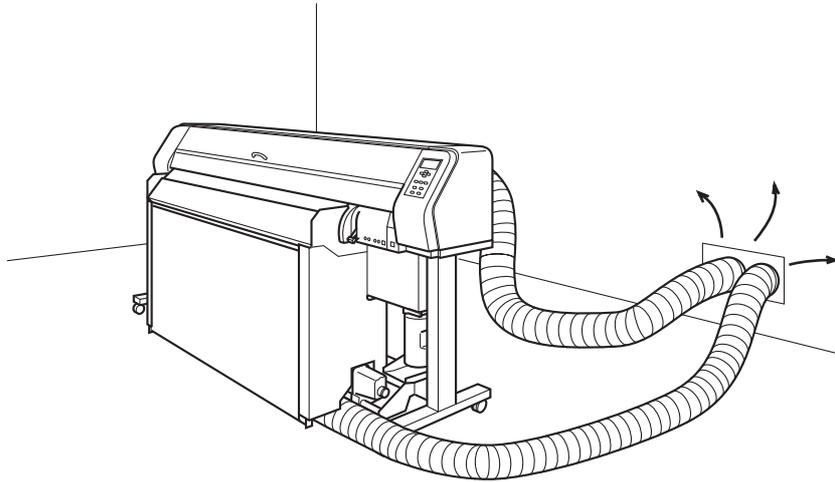
- The symbol "●" indicates a thing that is forced to be done and instruction that is forced to be followed. A concrete illustration of instruction (the removal of a plug from the receptacle is instructed in the sketch given on the left) is drawn in the illustration.



WARNING



- Be sure to setup the appropriate air-moving system in case of using the device in a closed room or a room with bad ventilation.



Flammable

- The special ink used for the device contains organic solvent (cyclohexanone), Since the ink is flammable, never use fire when using the device.



- When cleaning the ink station and head, be sure to wear the supplied goggle and gloves since you may get ink in your eyes.



- If you have swallowed the ink by mistake, keep quiet and immediately consult a doctor. Do not swallow what you have thrown up. Then, contact the Poison Control Center. Do not allow him or her drink vomit.



- If you absorb a lot of vapor and feel bad, immediately move to a location where fresh air is present and then keep yourself warm and quiet. Then, consult a doctor as soon as possible.



- Waste ink is equivalent to waste oil of industrial waste. Request its disposal to an industrial waste disposal agent.

WARNING

Handling of ink cartridges



- Ink is organic solvent.
If ink settles on the skin or clothes, immediately wash it off with detergent or water.
If you get ink in your eyes, immediately wash your eyes with a lot of clean water for at least 15 minutes. In this case, also wash the backside of eyelids to rinse ink away completely. Then, consult a doctor as soon as possible.
- Store ink cartridges and waste ink tank in a place that is out of the reach of children.
- Never refill the ink cartridge with ink. MIMAKI assumes no responsibility for malfunction caused by using the device after replenishment of ink.



During assembly



- The pack of the device is as heavy as approximately 200 kg.
Perform the assembly work by at least four persons.

Do not disassemble or remodel the device.



- Never disassemble or remodel the main unit of the printer and the ink cartridge. Disassembling/remodeling any of them will result in electric shocks or breakdown of the device.

Do not use the device in damp places.



- Avoid damp environments when putting the device into service. Do not splash water onto the device.
High-humidity or water will give rise to fire, electric shocks or breakdown of the device.

Abnormal event occurs.



- If the device is used under an abnormal condition where the device produces smoke or unpleasant smell, fire or electric shocks can result. Be sure to turn off the power switch immediately and detach the plug from the receptacle. Check first to be sure that the device no longer produces smoke, and contact a distributor in your district for repair. Never repair your device by yourself since it is very dangerous for you to do so.

Power supply and voltage



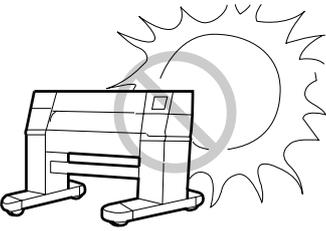
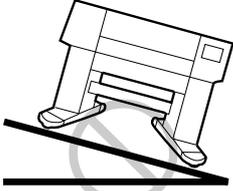
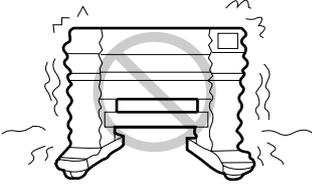
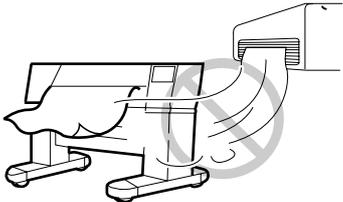
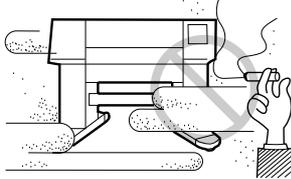
- Be sure to use the device with the power supply specifications indicated.
- Be sure to connect the plug of the power cable to a grounded receptacle.
If not, fire or electric shocks can result.

Handling of the power cable



- Take care not to damage, break or work on the power cable.
- If a heavy matter is placed on the power cable, heated or drawn, the power cable can break to cause fire or electric shocks.

Precautions in installation

 CAUTION	
A place exposed to direct sunlight	A place that is not horizontal
 	 
A place in which temperature and humidity vary by a great margin	A place that vibrates
 Use the device under the following environment. Operating environment: 15 to 30°C 35 to 65% (Rh)	 
A place exposed to direct air blow from air conditioner, etc.	A place where fire is present
 	  

Precautions in use

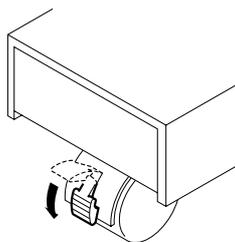
 CAUTION	
<p>Heater</p>  <ul style="list-style-type: none"> Do not spill liquid on the platen as this may cause failure of the heater or ignition.  <ul style="list-style-type: none"> Do not touch the platen heater with bare hand while it is hot as this may cause burn.  <ul style="list-style-type: none"> When moving the device, wait until the heater temperature drops. As a criterion, wait at least 30 minutes since you turn off the power of the heater. The device can be moved within the same floor without steps. When moving it to a different place, contact Mimaki sales office or dealer. 	<p>Protection against dust</p>  <ul style="list-style-type: none"> It is strongly recommended to use the device in a room that is not dusty. (See "Chapter 4 Maintenance functions.")  <ul style="list-style-type: none"> Keep the front cover held closed also when the device is not engaged in printing. If not, dust can accumulate on the head nozzle.  <ul style="list-style-type: none"> When leaving the workshop after the working hours, be sure to remove any media from the roll hanger. If any media is left on the roll hanger, dust can gather on it.  <ul style="list-style-type: none"> Store media in a bag. Wiping off dust accumulated on a media will adversely affect the media due to static electricity.  <ul style="list-style-type: none"> Frequently wipe the capping station clean to eliminate dust and paper chips. Wiping with a fluffy wiper only rubs dust over the capping station. Replace the fluffy wiper immediately with a new one.  <ul style="list-style-type: none"> Dust in the head will also cause drops of ink to fall abruptly down on the media during printing. If this phenomenon takes place, be sure to clean up the head. (See "Chapter 4 Maintenance functions.")
<p>Use the ink specified</p>  <ul style="list-style-type: none"> Do not use ink other than the JV3 genuine ink as doing so may cause damage to the device. Do not use the JV3 genuine ink for other plotters as doing so may cause damage to other plotters. 	
<p>Periodic exchange parts</p>  <ul style="list-style-type: none"> There are some parts which must be replaced by service men. Therefore, we would like to suggest that you make a contract with distributors or dealers for after-sale service. 	
<p>Power supply</p>  <ul style="list-style-type: none"> Leave the breaker turned ON. Do not turn OFF the main power switch on the rear face. 	
	<p>Front cover and lever</p>  <ul style="list-style-type: none"> Never open the front cover and/or lever during printing. Opening the cover or lever will abort printing.
	<p>Media</p>  <ul style="list-style-type: none"> If media that is likely to tightly curl, flatten first the paper before using it for printing. Heavily-curved media affect the plotted picture quality.

CAUTION

Locking the casters



- Be sure to lock the casters before starting plotting. If the device performs plotting without the casters locked, the device can move out of position.



Ink cartridges



- If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it.



- Open the ink cartridge just before installing it in the printer. If it is opened and left for an extended period of time, normal printing performance of the printer may not be ensured.



- Be sure to thoroughly consume the ink in the ink cartridge, once it is opened, within three months.

If an extended period of time has passed after opening the cartridge tank, printing quality would be poor.



- Be sure to store ink cartridges in a cold and dark place.



- Never replenishes the ink cartridge with ink.



- Using any ink type other than the exclusive one can cause a trouble. Remember that the user shall be charged for a repair to correct any damage resulting from the use of ink other than the exclusive type.



- Neither pound the ink cartridge nor shake it violently so as to prevent leakage of ink.

Warning labels



- This device is adhered with a warning labels. Be sure to fully understand the warnings given on the labels. In the case where any of the warning label has become so soiled that the warning message is illegible or has come off, purchase a new one from your local distributor or our office.

Refer to Appendix for the label adhering locations.

Precautions in handling the ink cartridge



- Ink is organic solvent. If ink settles on the skin or clothes, immediately wash it off with detergent or water.
If you get ink in your eyes, immediately wash your eyes with a lot of clean water for at least 15 minutes. In this case, also wash the back-side of eyelids to rinse ink away completely. Then, consult a doctor as soon as possible.



- Never disassemble the ink cartridge.



- Do not shake the ink cartridge violently. Shaking or turning it roughly can cause leakage of ink.



- Never refill the ink cartridge with ink. Refilling the ink cartridge can cause a trouble. Remember that Mimaki assumes no responsibility for any damage caused by the use of the ink cartridge replenished with ink.



- Using any ink type other than the exclusive one can cause a trouble. Remember that the user shall be charged for a repair to correct any damage resulting from the use of ink other than the exclusive type.



- If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it.



- Be sure to thoroughly consume the ink in the ink cartridge, once it is opened, within three months. If an extended period of time has passed after opening the cartridge tank, plotting quality would be poor.



- Be sure to store ink cartridges in a cold and dark place.



- Store ink cartridges in a place that is out of the reach of children.



- Request an industrial waste disposal agent to dispose of the empty ink cartridges and waste ink tank.

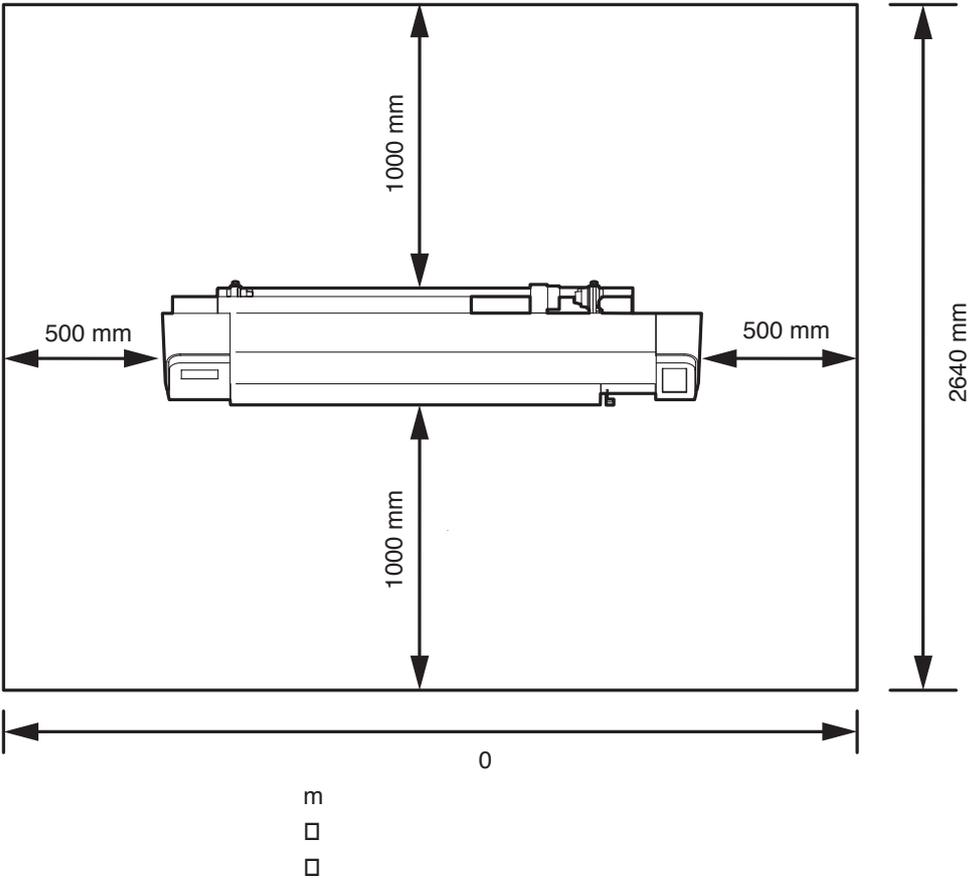
Where to Install the Device

Secure a suitable installation space before assembling the device.

The place of installation must have space required not only for the device itself but also for plotting operation.

Model	Width	Depth	Height	Gross weight
JV3-160SP	2660 mm	750 mm	1240 mm	About 175kg*

*: With exhaust unit : 185kg



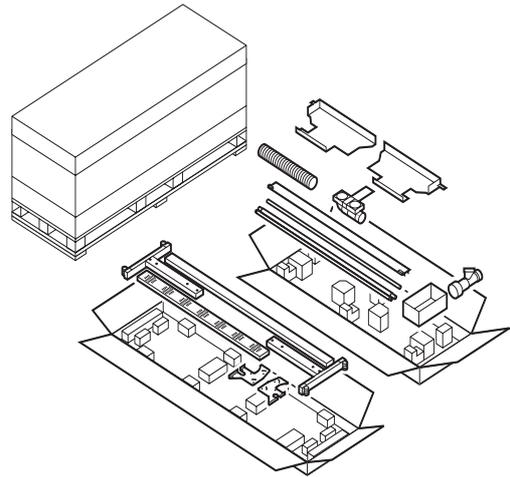
Unpacking and Assembling

Assembling the pedestals and the device



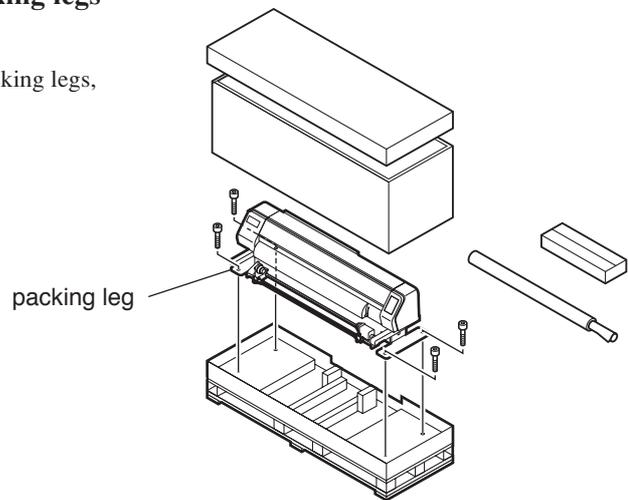
- The pack of the device is as heavy as approximately 200 kg. Perform the assembly work by at least four persons to ensure safety.
- Exercise added care not to drop the main unit on your feet.

1. Lift down the carton which contains the exhaust plotter and legs.



2. Remove the four screws which fix the packing legs and packing pads.

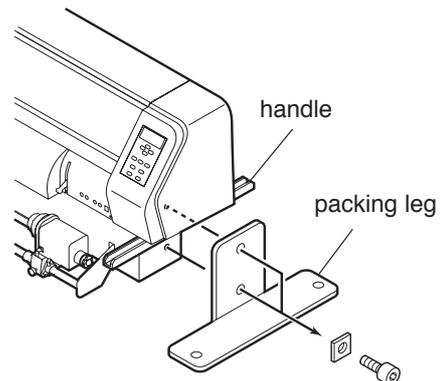
Take the plotter out of the carton together with the packing legs, then put it on the floor.



3. Remove the four screws (two at each end) which fix the packing legs to the plotter.



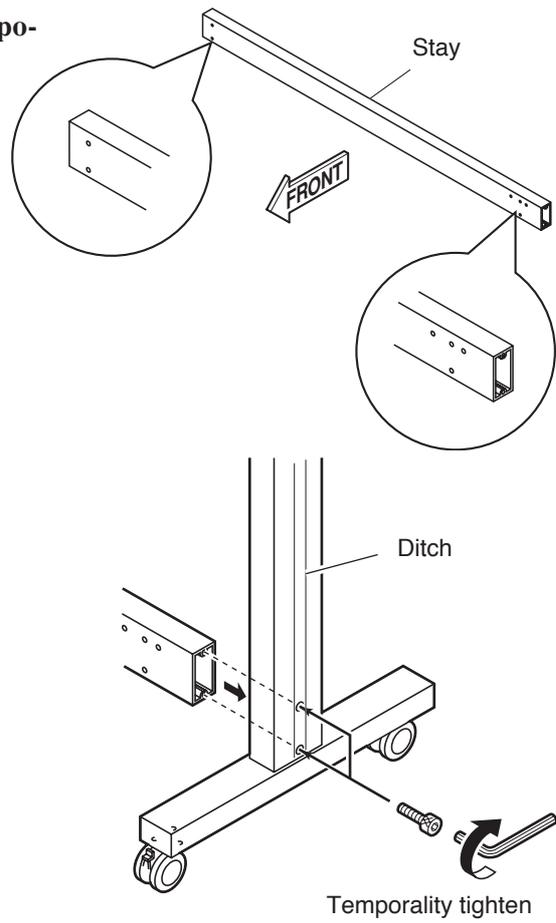
- Do not hoist the handle with a crane, or the plotter may become faulty.



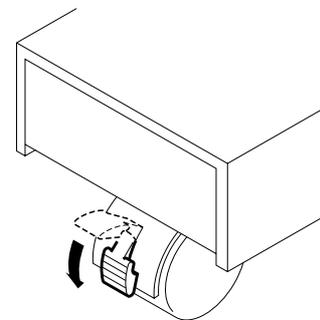
4. Using four screws, attach the stay to the leg temporarily.

The stay has vertical and horizontal aspects.

The side of the leg with a ditch is the outside.
Use the hexagonal wrench.



5. Lock the four stoppers of the leg.



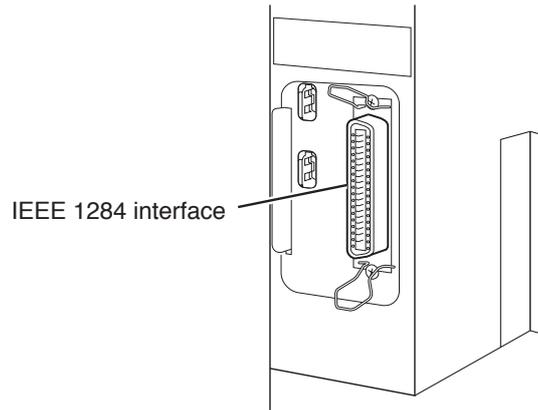
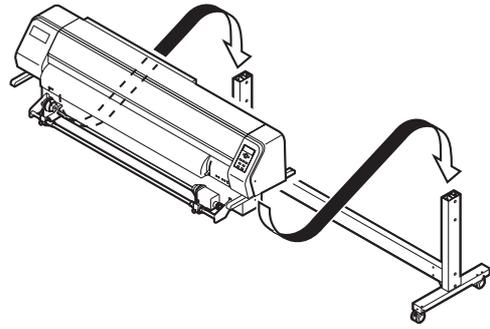
6. Hold the handles of the plotter by four people.



7. Put the front face of the leg first. If the rear face of the leg is put first, the plotter cannot be attached because of the interface connectors.

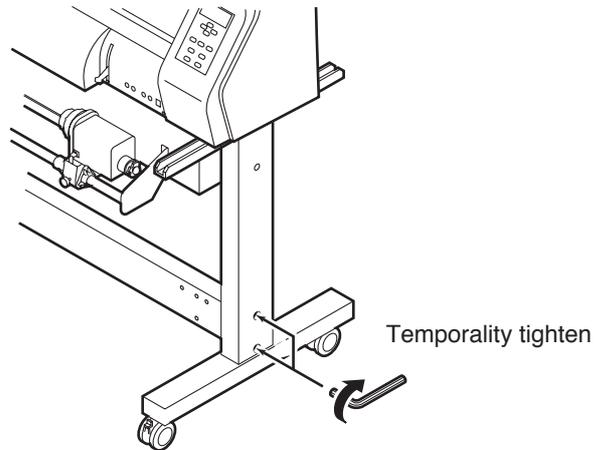


• The plotter is very heavy. Be careful not to drop it.

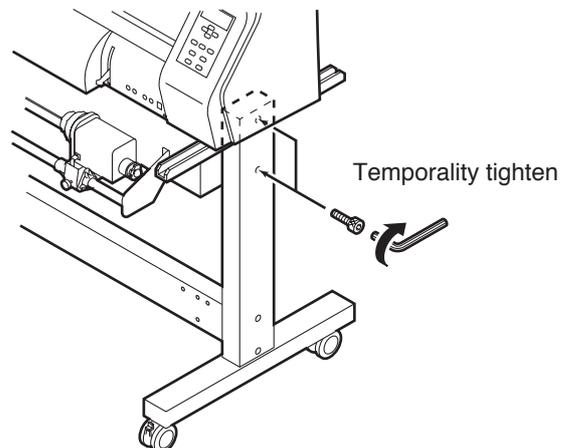


8. Fix the plotter and stay to the leg.

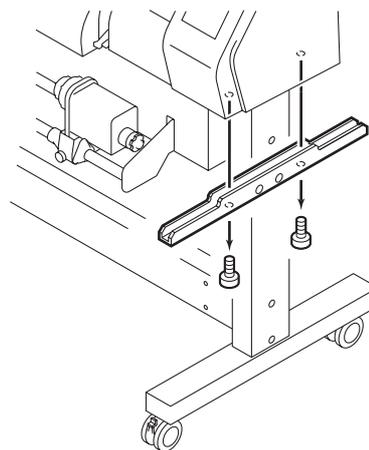
Fix the plotter to the leg using four screws.
Fasten the screws which fix the stay to the leg.



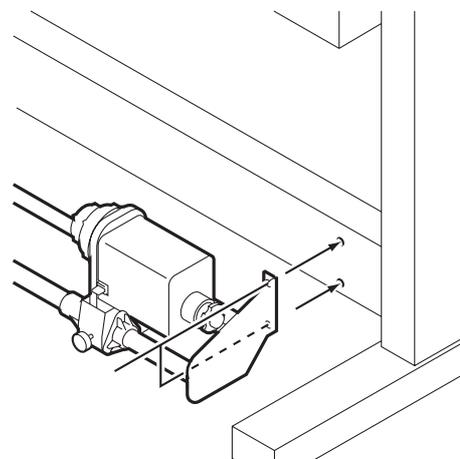
9. Attach the leg to the plotter temporarily with two bolts.



- 10. Remove two screws each from the right and left sides and detach the right and left handles.**

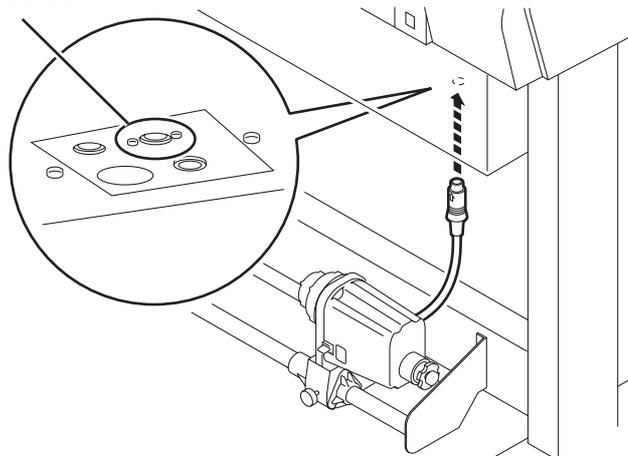


- 11. Remove the four screws which fix the take-up device to the plotter.
Then, attach the take-up device to the stay.**

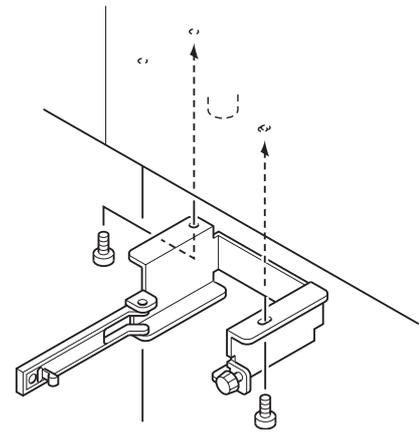


- 12. Connect the cable of the take-up device to the connector at the bottom of the plotter.**

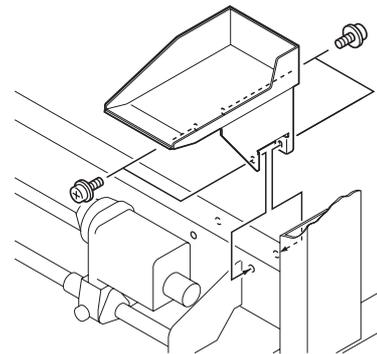
For take-up device



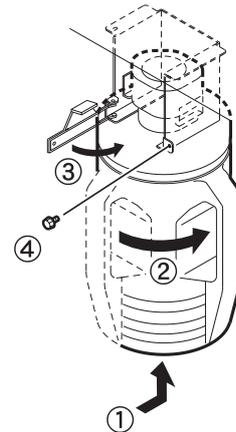
13. Attach the waste ink tank bracket to the plotter.



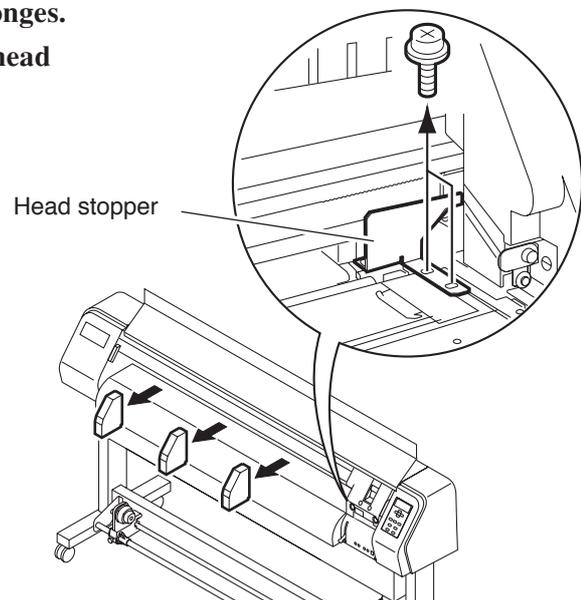
14. Attach the waste ink tank tray with four screws.



15. Attach the waste ink tank.



**16. Open the front cover and then remove the sponges.
Remove the two screws and then remove the head stopper.**



Mounting the protection cover for 440cc ink cartridges

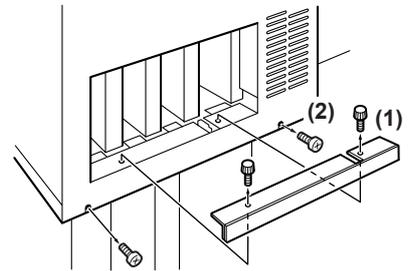
1. Remove the two knobs and the ink name plate.

When insert the ink cartridge, remove the ink cartridges from ink station.

2. Remove the two knobs at side of the ink station.

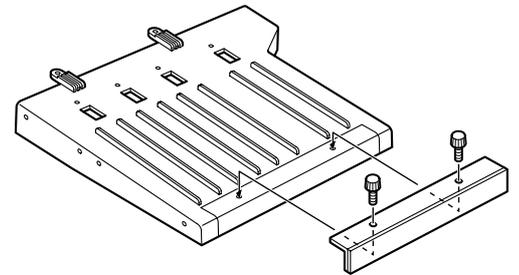


- Keep the knobs for mounting the 440cartridge base.



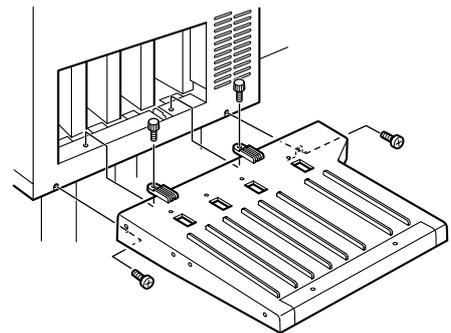
3. Attach the ink name plate on the 440 cartridge base.

Fix it with two knobs that removed in procedure 1.

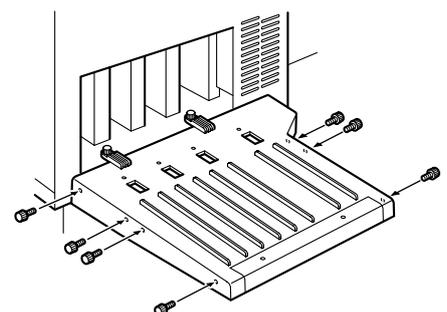


4. Mount the 440 cartridge base on the ink station.

Fasten the provided two knobs and the two knobs that removed in procedure 2.



5. Fasten the seven knobs temporarily at the both side of the 440 cartridge base.

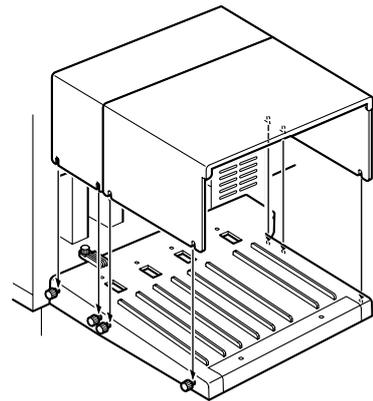


6. Set the two protection covers on 440 cartridge base.

Insert the protection cover between the 440 cartridge base and the screws that fixed temporarily in procedure 5.

Tighten the screws to mount the protection cover.

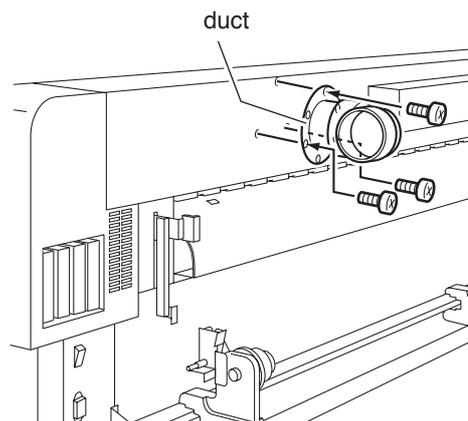
7. Mount the protection cover at the both side of ink station as the same way.



Assembling Rear Exhaust Duct

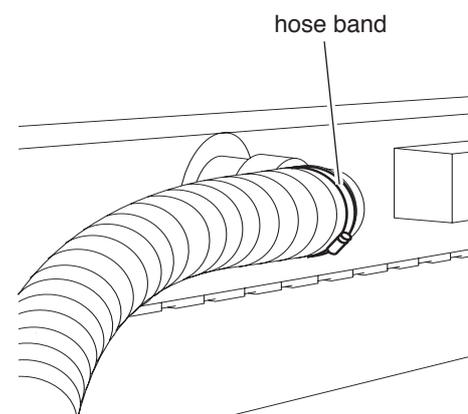
- 1. Attach the duct to the rear panel of the plotter using three screws.**

The duct can be attached either rightward or leftward depending on the exhaust outlet ventilation.



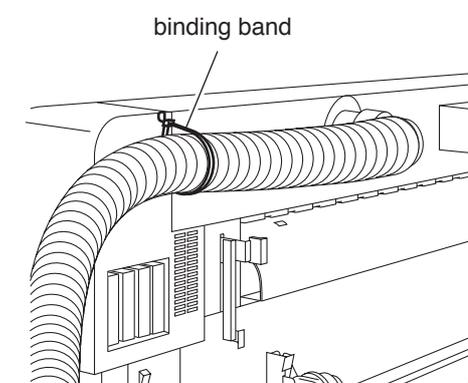
- 2. Fix the exhaust hose using hose band.**

Lead the opposite end of the hose outdoors.

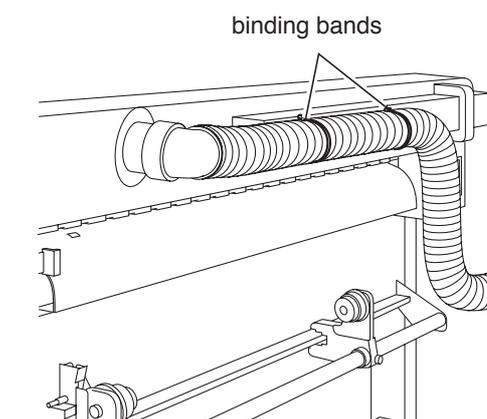


- 3. Attach binding band for fixing the exhaust hose to the rear panel of the plotter.**

To discharge air to the right side of the plotter, attach one binding band.

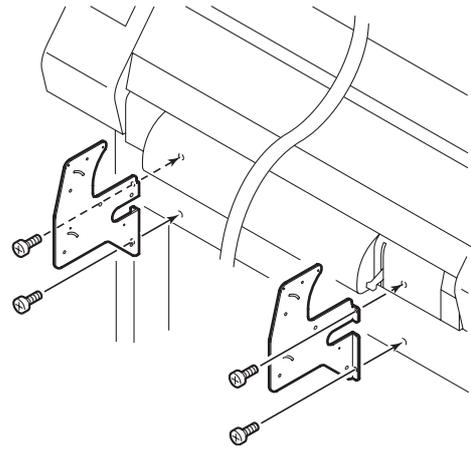


To discharge air to the left side of the plotter, attach two binding bands.

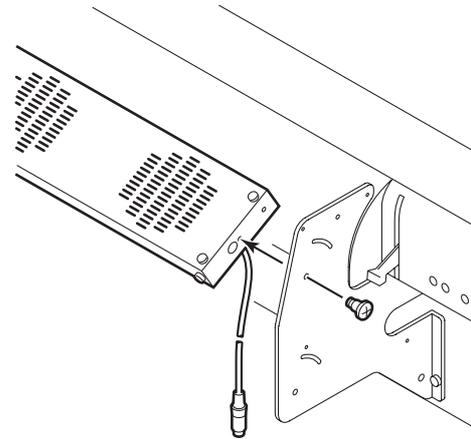


Assembling drier fan Unit

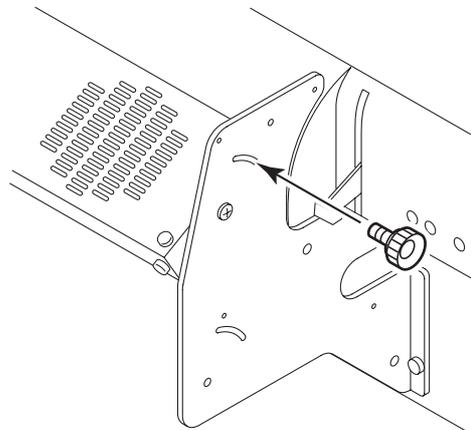
1. Attach the drier fan stay R/L to the front panel of the plotter using 4 screws.



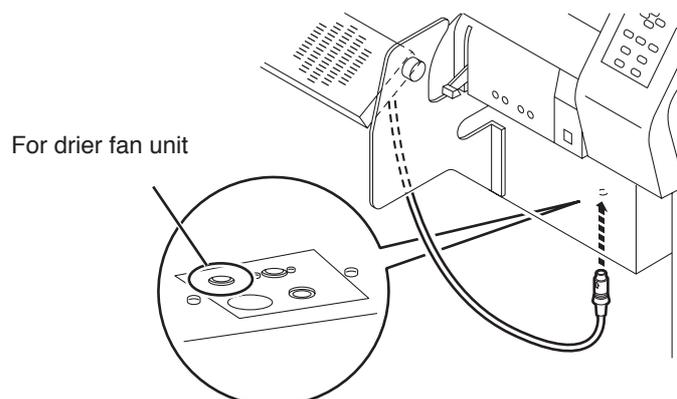
2. Attach the drier fan unit to the fan stay using 2 supporting point screws.



3. Attach 2 knob screws.



4. Connect the drier fan unit cable to the connector at the underside of the bottom.



Assembling Front Exhaust Unit



- Wear protective gloves when assembling the front exhaust unit. If you do not wear gloves, you may get hurt.



- Be sure to perform step 7) to pull out the pin which fixes the winding of the roll screen.



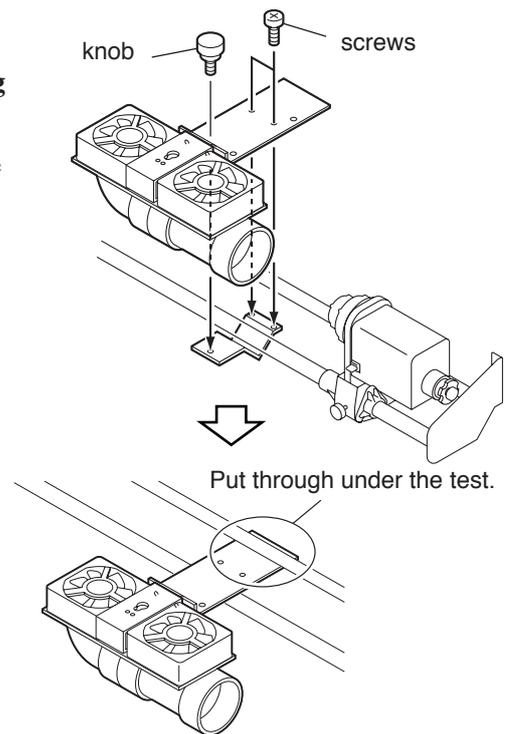
- At shipping, the exhaust fan is set for exhaust to the right. For exhaust to the left, see “Leading the exhaust hose to the left.” P.24

1. Fix the exhaust fan to the take-up device shaft using one knob and two screws.

Attach the exhaust fan to fit the setup orientation (left/right) of the duct hose. (P.24)



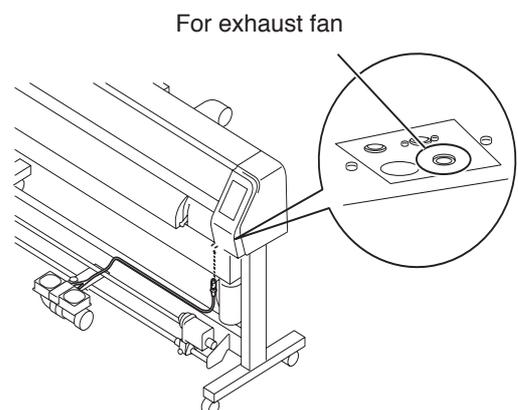
Arrange the exhaust fan under the media to be set.



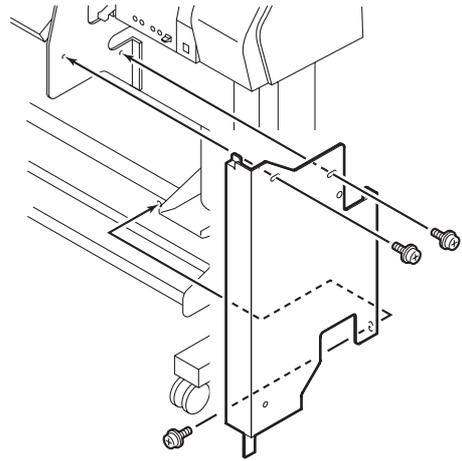
2. Along the stay of the leg, plug the power cable of the exhaust fan to the connector at the bottom of the plotter.



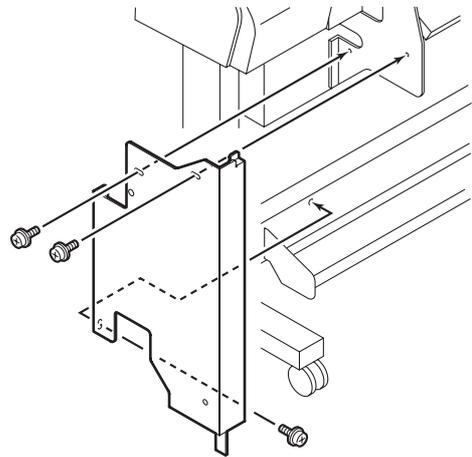
Do not plug the power cable to the connector of the take-up device as this may cause failure.



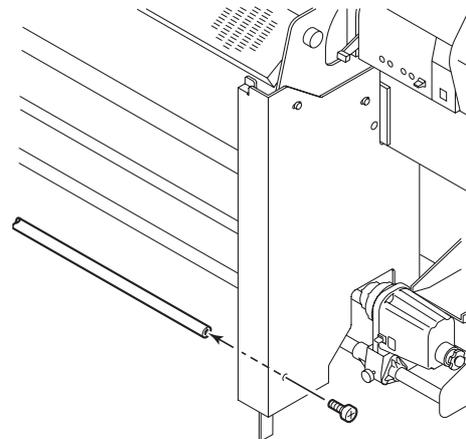
- 3. Attach the exhaust cover R to the drier fan stay R and leg stay using 3 screws.**



- 4. Attach the exhaust cover L to the drier fan stay L and leg stay using 3 screws.**

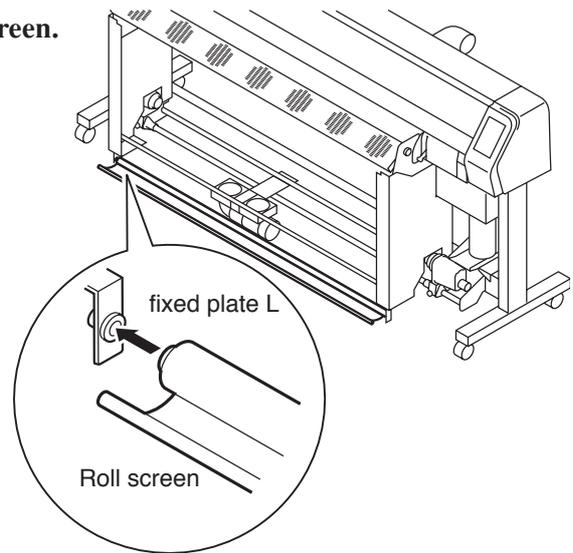


- 5. Attach the exhaust cover stay to the exhaust cover R/L using 2 screws.**

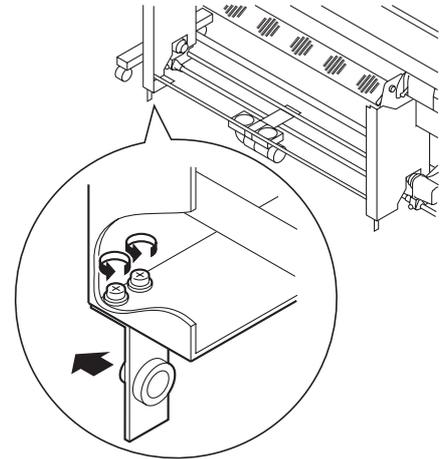


6. Insert fixed plate L at the left end of the roll screen.

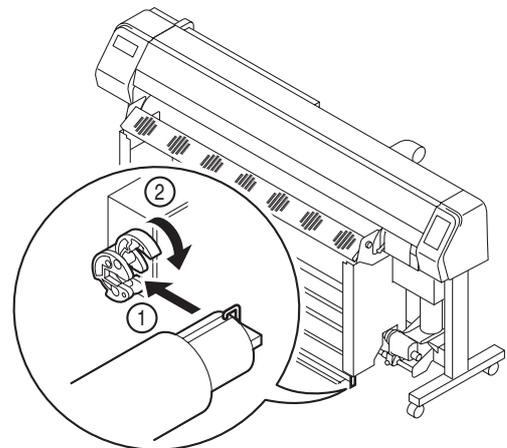
Note the mounting orientation of the roll screen.



- If the spacing between the right and left fixing plates are too narrow, loosen the two bolts fixing the roll screen locking plate. Then, put the both right and left exhaust covers apart, and attach the roll screen.



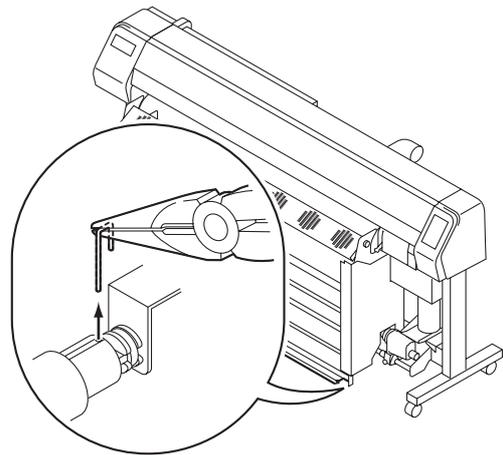
7. Put the right edge of the roll screen into the slot of fixed plate R to fix it.



8. Extract the roll screen shaft from the roll screen with long-nose pliers.



- The pin is needed to detach the roll screen. Be careful not to lose the pin.

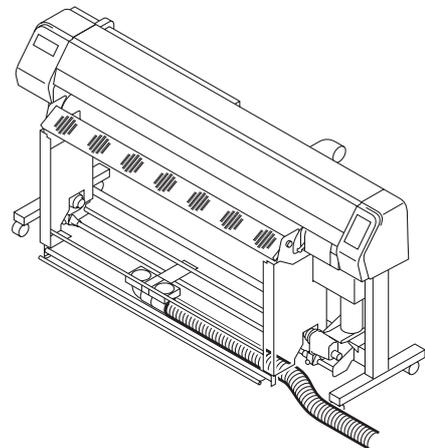


9. Lead the exhaust hose under the exhaust cover.

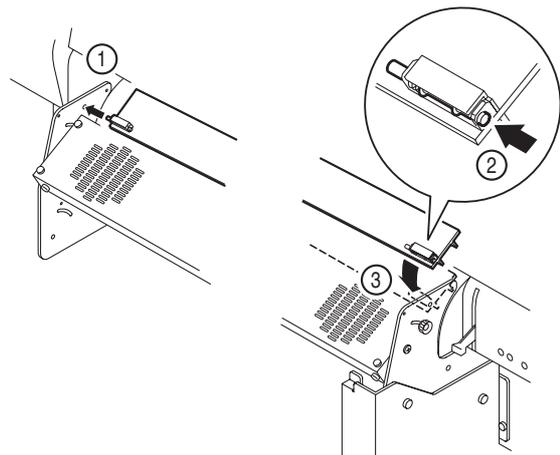
Attach it to the exhaust fan using hose bands.



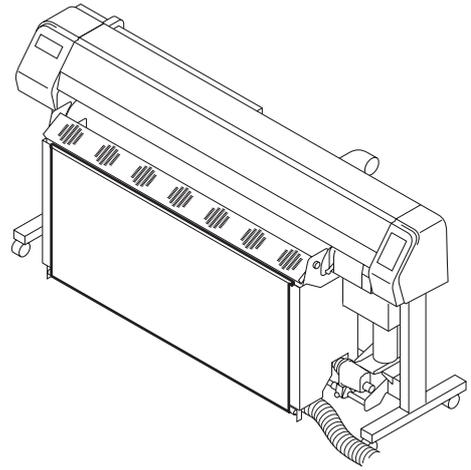
- Be sure to lead the exhaust hose outdoors or connect it to the optional deodorizing device.



10. Attach the exhaust cover.



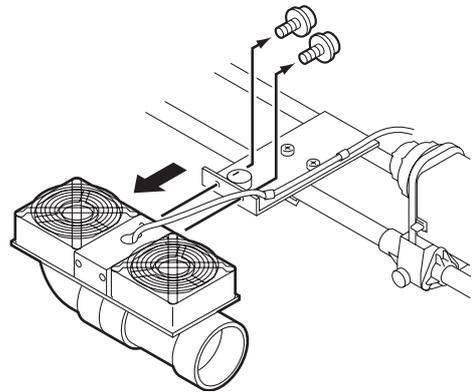
11. During plotting, hang the screen bar to the exhaust cover.



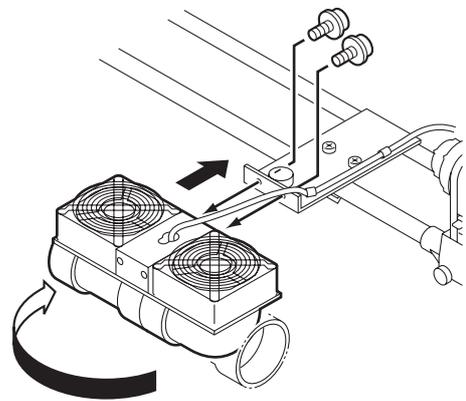
Leading the exhaust hose to the left

When leading the exhaust hose to the left, change the direction of the exhaust fan.

1. Remove the two screws.



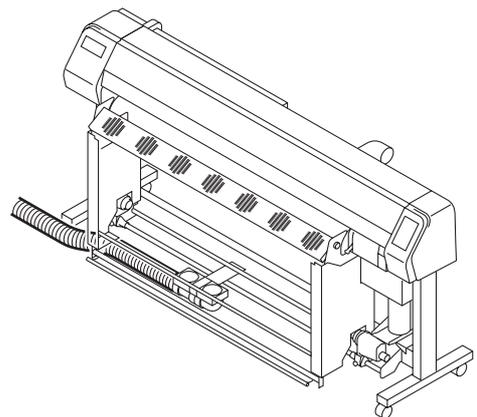
2. Change the direction of the exhaust fan so that the exhaust hose will come to the left side.
Fix the exhaust fan with two screws.



3. Lead the exhaust hose under the exhaust cover L.



- Lead the exhaust hose outdoors or connect it to the optional deodorizing device.



If the roll screen spring has lost its elasticity

If the knob at the right end of the screen is released without sticking the pin, the screen take-up spring will be stretched.

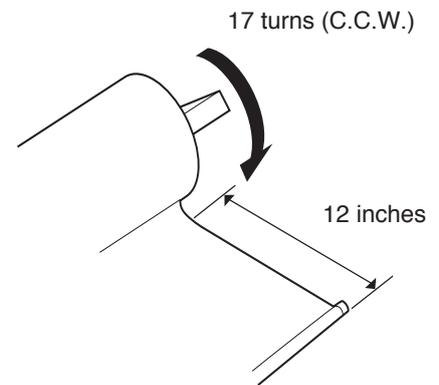
Once stretched, the screen will lose its elasticity to take up the screen. If the elasticity has been lost, wind the spring again as shown below

1. Pull the end of the screen about 12 inches out.
2. Give 17 counterclockwise turns to the knob at the right end of the screen with a wrench.

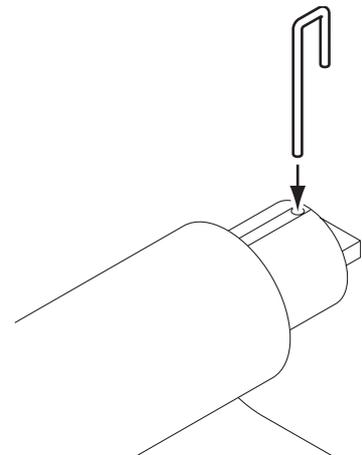
You can adjust the screen take-up force by changing the number of turns.

Counterclockwise turn: Increases the take-up force.

Clockwise turn: Reduces the take-up force.



3. Stick the pin into the knob at the right end of the screen to prevent the screen from turning.



Setting the heater voltage

Set the heater voltage according to the supply voltage to the plotter.

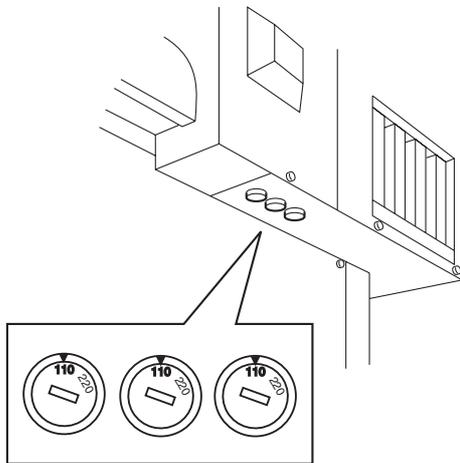
For the voltage setting, use the three voltage selectors under the left back of the cover.

At shipping from the factory, the voltage is set to 220 V for safety.

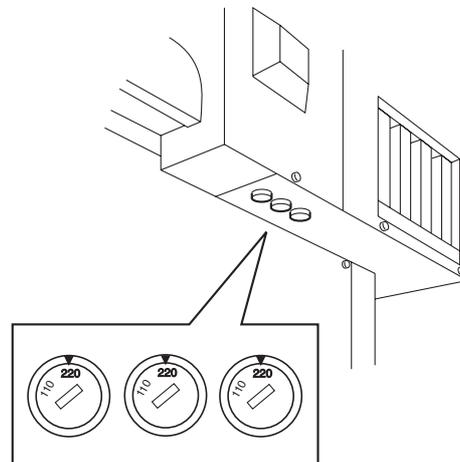


- **Connecting the plotter to a 220V power supply with the voltage selector set to 110V may damage to it.**
- **Connecting the plotter to a 100-120V power supply with the voltage selector set to 220V prevents the heater from heating up to the specified temperature.**

When connecting to 100-120V



When connecting to 200-240V



Connecting the Cables

Connecting the interface cable

Connect the device to the computer with the appropriate interface cable.

Two types of interface cables are available with the device. Select the interface cable appropriate to the computer and output software used.

When Windows 2000/XP is used (IEEE 1394)

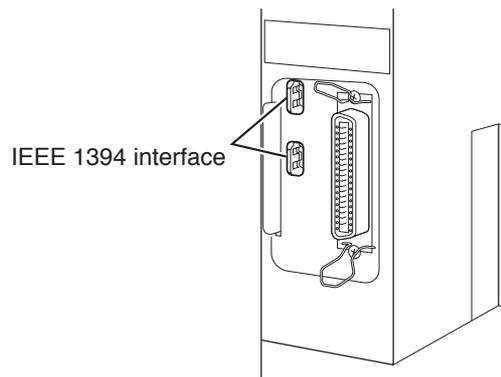
When the computer is operated with Windows 2000/XP, use an IEEE 1394 interface cable to connect the computer and the device together.

It is possible to use an IEEE 1284 interface cable for connection between the computer and the device. In this case, however, the data transmission speed decreases.



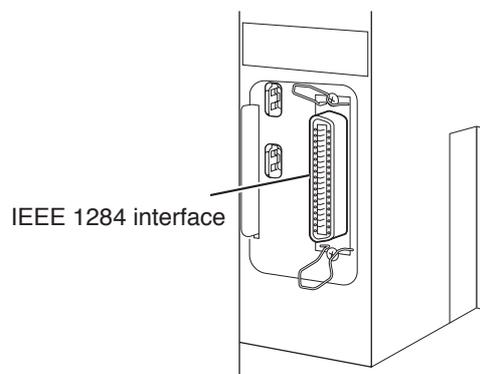
CAUTION

- The application used must be applicable to IEEE 1394.
- Either of the two IEEE 1394 connectors can be used.



When software other than Windows 2000/XP is used (IEEE 1284)

When the software used is other than Windows 2000/XP, use an IEEE 1284 interface cable to connect the computer and the device together.



Connecting the power cable

Connect the power cable as described below.

Connect the power cable to the receptacle of the following specifications.

- Voltage : **AC 100 – 120 V \pm 10%**
AC 200 – 240 V \pm 10%
- Frequency : **50/60 Hz \pm 1%**
- Capacity : **12A or less (AC 100 – 220 V \pm 10%)**
6A or less (AC 200 – 240 V \pm 10%)

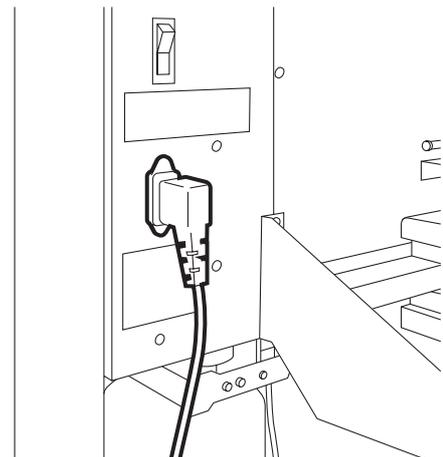


- **Be sure to insert the power cable into an appropriately-grounded receptacle. If not, there is a fear of arising electric shock hazards and damage to the device.**



- **Be sure to turn off the power switch of the device in prior to the connection of the power cable.**

1. Connect the power cable to the AC inlet.

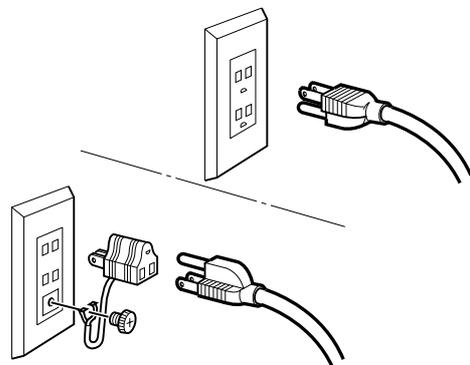


2. Connect the power cable to the 3-pole receptacle.



For a 2-pole receptacle, connect the grounding adapter supplied with the device to the power cable plug.

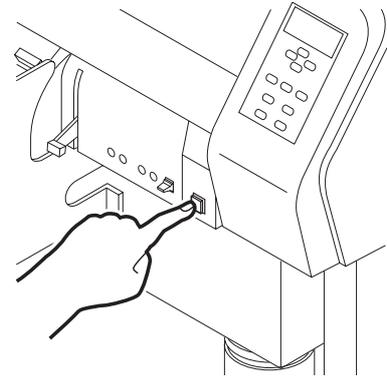
Properly ground the green wire (ground lead) of the grounding adapter.



Turning the power ON

1. Turn ON the power of the plotter.

Push the power switch on the front panel of the plotter once. The switch is pushed in.

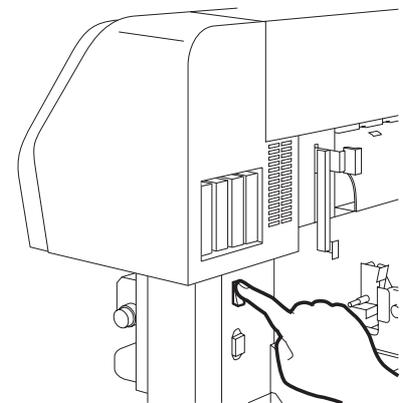


2. Turn ON the main power of the plotter.

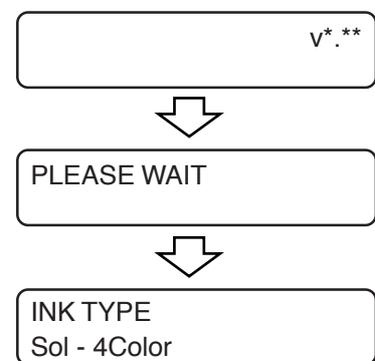
Set the power switch on the rear panel of the plotter to the I side. The main power is turned ON.



• **Close the front cover. If the front cover is open, the plotter does not operate after power ON.**



When the power is turned ON, the plotter displays BOOT and then the firmware version number.



Filling Ink for First Time

To fill up the ink for the first time, pre-fill up solution cartridges.
Follow the procedures below to fill up the ink.

STEP

1. Turn on the power to the device.

PLEASE WAIT

2. Select the ink type (ink set) to fill up pressing the JOG [▲], [▼] key, and press the [ENTER] key.

Sol :Solvent ink
M Sol : Mild solvent ink
SS2 Sol : SS2 ink (Solvent ink 2)

INK TYPE
Sol - 4 Color

Sol - 6 Color
M Sol - 4 Color
M Sol - 6 Color
SS2 Sol - 4 Color
SS2 Sol - 6 Color

If an ink cartridge has already been set in the unit, the message on the right will appear.

Remove the ink cartridge.

REMOVE CARTRIDGE



3. Insert the 8 Pre-fill up solution cartridges into the ink stations.

Filling begins.



Do not open the front cover.

Set a
filling up tool.

FILL UP
PLEASE WAIT



Displayed in
alternation

FILL UP

When filling is complete, the message on the right appears.

4. Remove the filling cartridges.

Remove a
filling up tool.

5. Insert the ink cartridges in the ink stations.

Ink is filled automatically when the ink cartridge is set.

Set a cartridge

FILL UP
PLEASE WAIT



Displayed in
alternation

FILL UP

The menu returns to LOCAL mode when ink fill-up operation is completed.

<LOCAL>

Turning the power OFF

To turn the power off, check first whether or not there is data received and there remains data that has not yet been output in the device.

Also be sure that the head rests at the capping station.

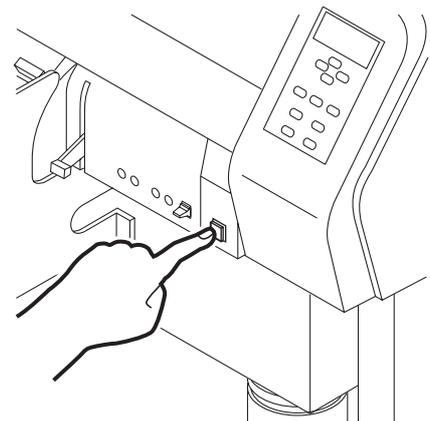


- **If the power is turned off while the device is engaged in plotting, the head may fail to be retracted in the capping station. If the head is left without capped for an extended period of time, the nozzle will be clogged with dust.**

If the power to the device is turned off without the head capped, re-turn on the power to the device.

- **Do not turn OFF the main power switch. The nozzle blockage prevention function is disabled.**

1. **Push the power switch on the front panel of the plotter once.**



Accessories



Pre-fill up solution cartridges 8 pcs.



Goggle



Waste ink tank



Rear duct hose



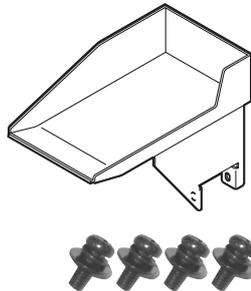
Hose band



Duct, Screws 3 pcs.



Waste ink tank bracket,
screws 2 pcs.



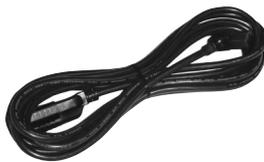
Waste ink tank tray
screws 4 pcs.



Binding bands 2 pcs.



Bolts 8 pcs.
(For legs)



Power cable



Hexagonal wrench



Phillips screwdriver



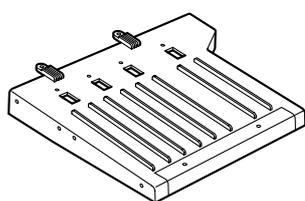
Screws 4 pcs
(for Drier fan)



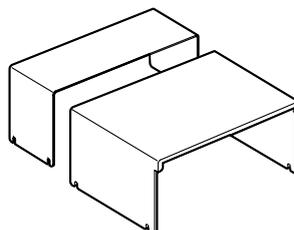
Supporting point screws 2 pcs
(for Drier fan unit)



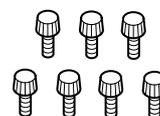
Knob screws 2 pcs
(for Drier fan)



440 cartridges base 2 plate



Protection cover set x2



Knobs 18pcs
(for protection cover)

Cleaning solution RS kit for maintenance



Pipette



Gloves 3 pairs



Swabs



Cleaning solution RS



Printed in Japan

D200926-1.10-11112004

© MIMAKI ENGINEERING Co., Ltd. 2004