

INSTALLATION MANUAL

OFFSET PRINTING MACHINE

AR-010



PREFACE

- Please read this manual thoroughly before installing the machine for proper and safety operation.

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■ UNPACKING

The following tools are required for unpacking and installation.

Required Tools

Cutter knife
Nail puller
M8 wrench (Subtense 15mm)
M10 wrench (Subtense 17mm)
M12 wrench (Subtense 19mm)
Phillips screwdriver

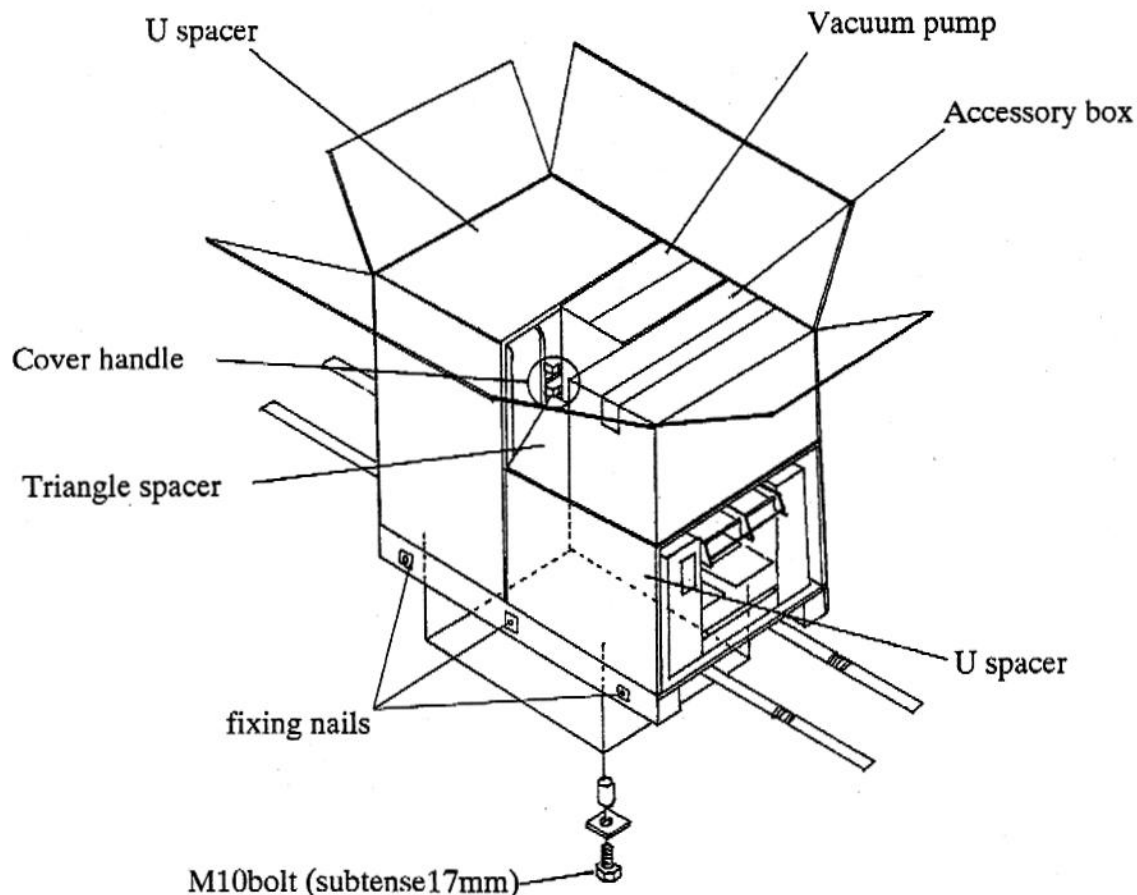
1. Cut the packing band with a cutter knife and remove fixing nails (three each in both sides) on the pallet.
2. Open the top side of package, take out the triangle spacer, bring out vacuum pump and accessory boxes.
 - When bringing out, be sure and not caught by the cover handle of this machine.



CAUTION

- Vacuum pump and accessory boxes are considerably heavy, pay attention and not to drop them.

3. Take out two U spacers and pull the package upward.
4. Remove a wrapping vinyl bag of this machine.
5. Remove four fixing bolts on the bottom of pallet with a M10 wrench (subtense 17mm).



6. Firmly attach the exclusive carrying handle on feed side and delivery side with four M12 x 70 bolts.



WARNING

- When conveying the machine, never carry the cover. The cover detaches and the machine drops, causing injury.
- Do not put many loads on one power outlet, this may result in electric shock and fire.



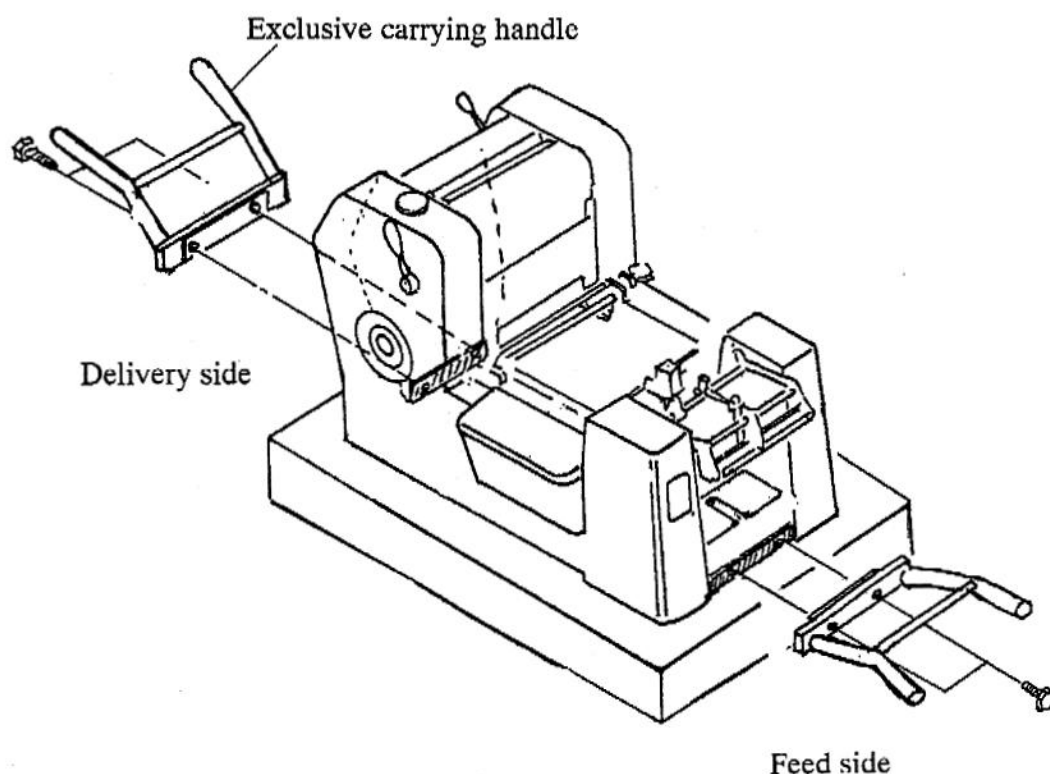
CAUTION

Installation and Moving

- The machine weighs approximately 120kg. When conveying the machine by hands, use the exclusive carrying handles and do with at least four persons. It is very dangerous when the machine drops. With lesser man power to convey the machine result in hurting your back (i. g. hernia of an intervertebral disk, etc.).
- Use a lifting machine or a machine to convey the machine as much possible as you could. One's possible carrying ability is up to 30kg.
- Never carry the cover to move the machine. The machine may drop due to detaching of cover causes injury.

About the operation

- Never plugging and unplugging the power cord with a wet hand for preventing a shock from electricity. Also, be sure to hold the plug for plugging and unplugging the power cord.
- Do not put any heavy object on the power cord. This may result in electric shock and fire.
- Do not connect any other equipment besides the spray unit to spray terminal. Invites damages due to generation of heat inside the machine.
- Never tear off the hazardous label pasted on the machine. User may not pay attention and it is very dangerous. If the label is spoiled or becoming uncleaned, re-paste with a new one.



■ INSTALLATION

Installing Environment

- Because malfunctions or print failure occurs, do not install the machine nearby windows to avoid direct sun light.
- Because resulting in abnormal movements or print failure, avoid install the machine where dusty and floor vibrates.
- Because feeding, delivery, and printing failures occur due to paper quality change, avoid install the machine close to air conditioner's direct wind-swept.
- Because resulting in feed, delivery and print failure, avoid install the machine where high humid and high temperature exist.

Using environment temperature : 18°C~25°C

Using environment humidity : 50%~60%

Sensor Malfunction

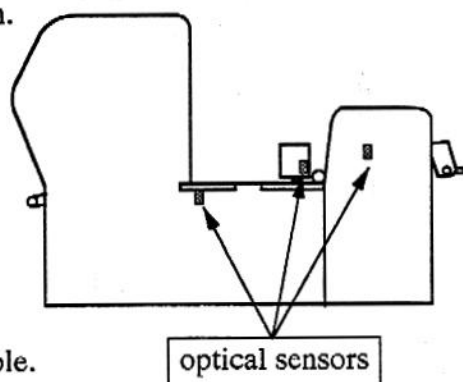
- This machine employs three optical sensors in feed table section for paper detection. These sensors emit an infrared ray and detects its reflected ray from paper. Accordingly, when a powerful infrared ray applied externally, causing an erroneous detection.

Following are the notes for preventing erroneous detection.

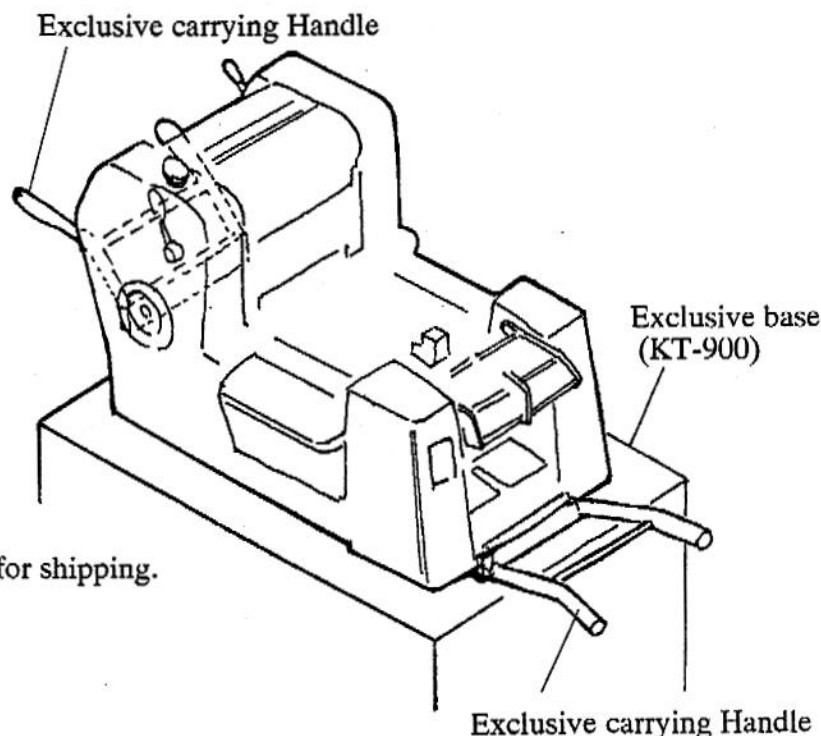
- * Take a sufficient interval between feed table and lighting.
- * Use a fluorescent lamp for lighting.
- * Do not install close to the windows for avoiding sun light.

Following are the phenomena of sensor malfunctions.

- (1) One sheet feed (test feed) is unable to do.
(Feeding does not stop at one sheet.)
- (2) Error message "FEEd" appears.
- (3) Keep feeding action however no sheet on the feed table.
- (4) Counter functions abnormally.
(Displayed number of copies differs from the actual number of copies.)
- (5) Elevator goes up and does not stop.
(If it goes up too high, the machine may damage.)



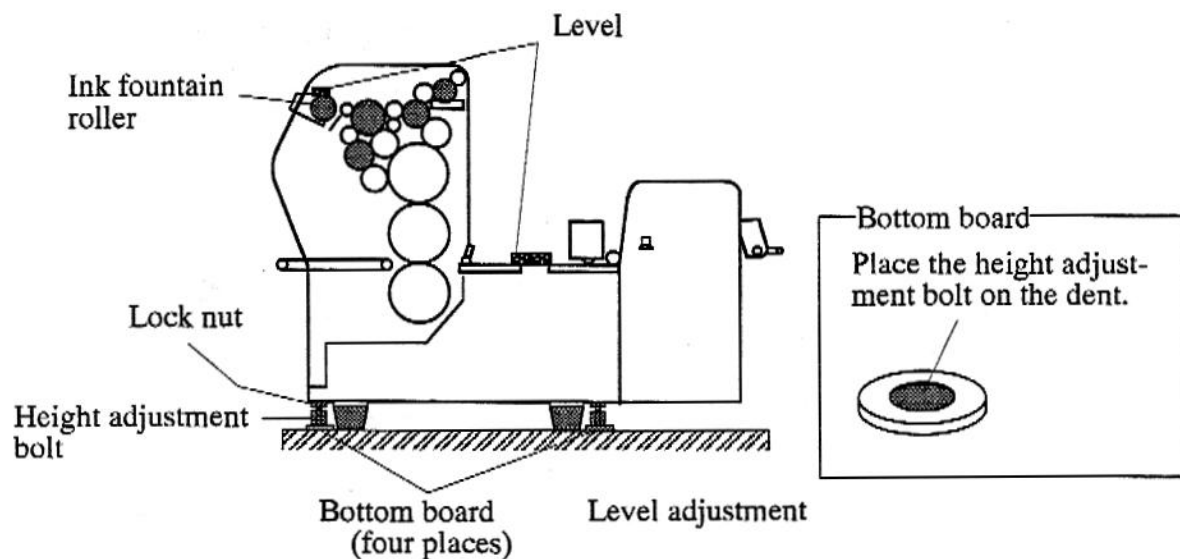
1. Place the machine on the optional exclusive base (KT-900) by holding the exclusive carrying handles.



2. Remove adhesive tape used for shipping.

3. Next, loosen four lock nuts so as the four height adjustment bolts set on the dent of bottom board.

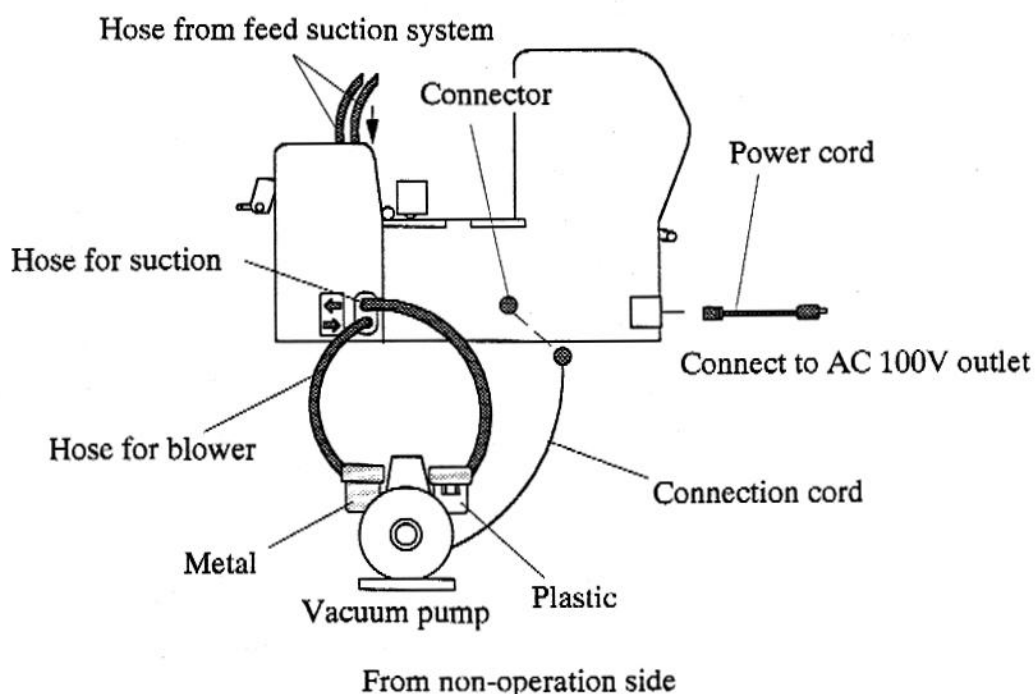
Leveling of machine is performed by putting a level on the places between the ink fountain roller and the feed table. Secure the lock nuts when finished leveling.



4. Insert the connection cord from the vacuum pump to the connector in non-operation side.

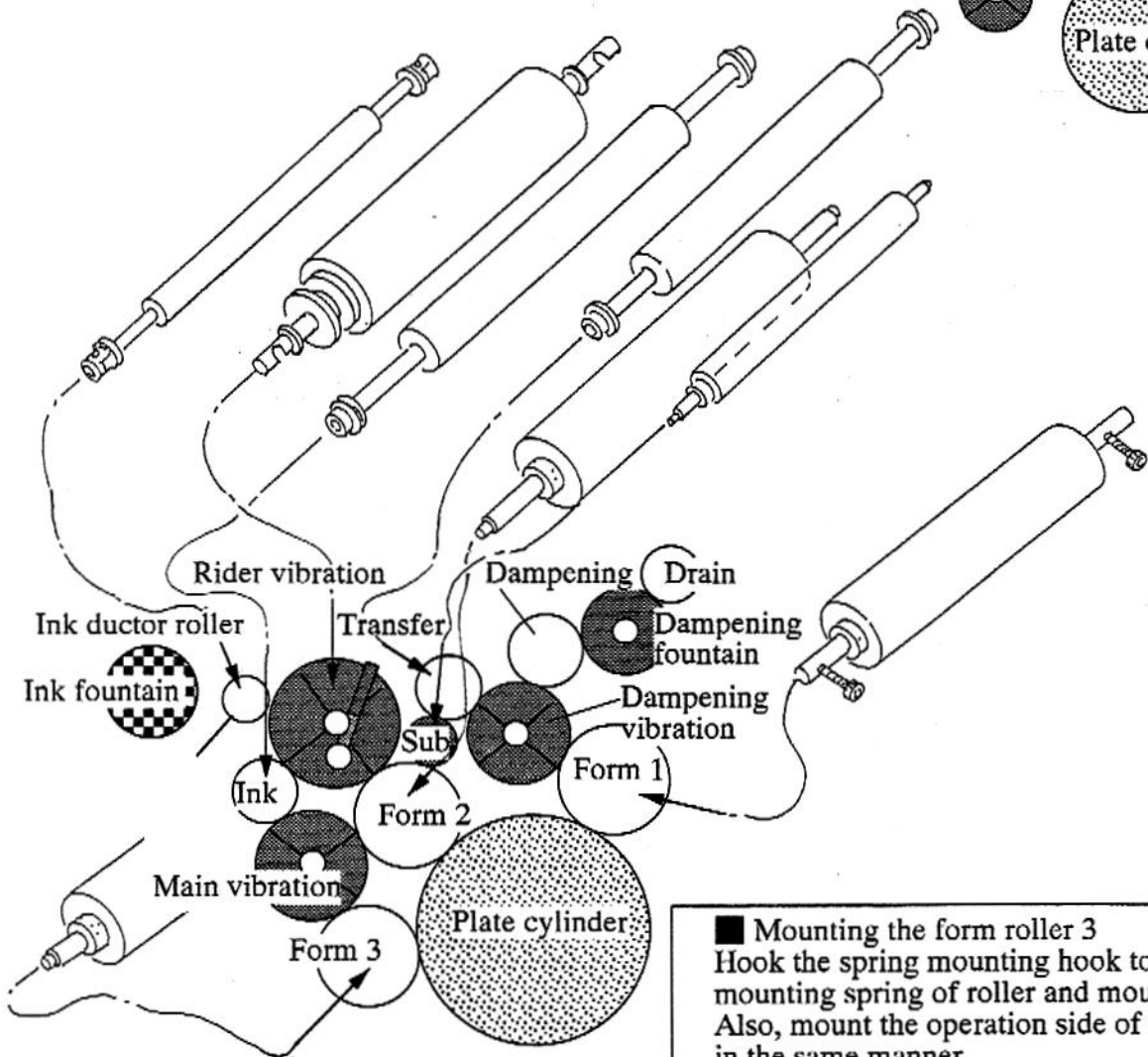
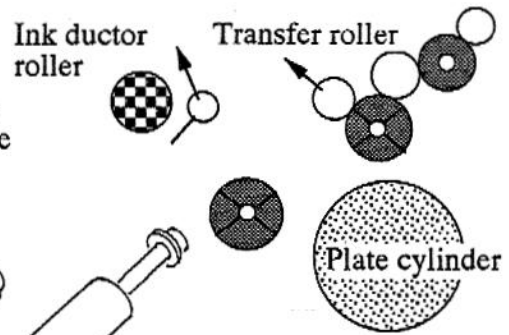
5. Connect the hose for suction to the upper side hose joint, and the hose for blower to the lower side hose joint.

6. Insert the hoses from the feed suction system to the cover top.



7. Mount the rollers to the body.

Detach the ink ductor roller and the transfer roller already attached to the body in the first place. Slide the mounting hook to detach the ink ductor roller. Disengage the both sides mounting springs to detach the transfer roller. Mount the rollers as follows:



■ Mounting the form roller 3
Hook the spring mounting hook to the mounting spring of roller and mount. Also, mount the operation side of roller in the same manner.

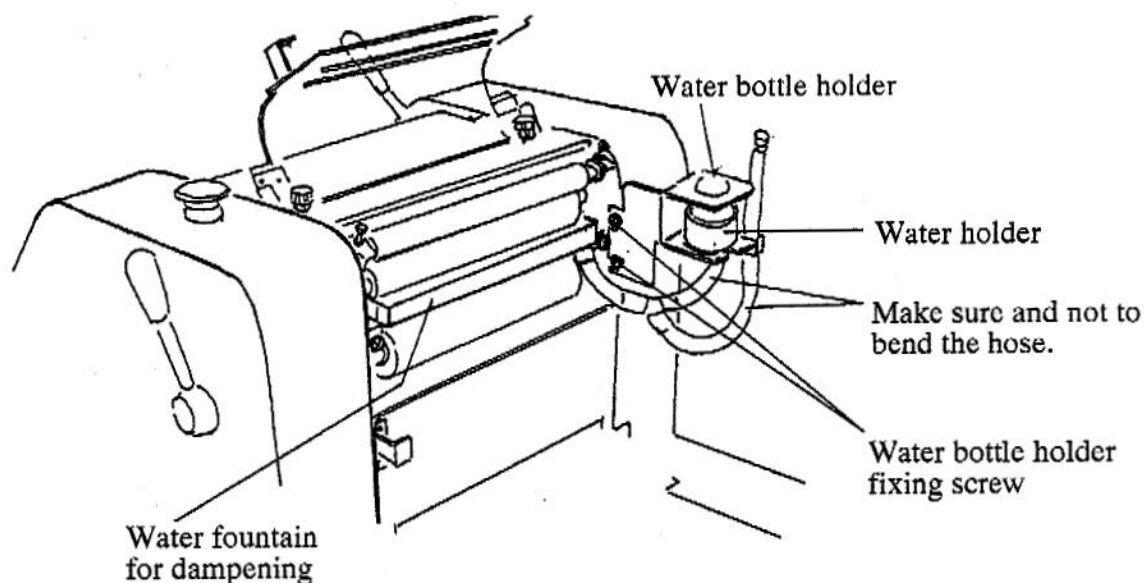
- (1) Form roller 2
Mount with the both sides mounting springs. (Collar comes to operation side.)
- (2) Sub-roller
Mount with the mounting spring. (Collar comes to operation side.)
- (3) Transfer roller
Engage the mounting springs and mount.
- (4) Ink roller
Mount as it is.
- (5) Rider vibration roller
Pull the both sides hooking shafts and mount.
- (6) Ink ductor roller
Slide the mounting hook and mount.
- (7) Form roller 1 (with kneading adjustment screw)
Mount with the mounting spring. (Collar comes to operation side.)
- (8) Form roller 3
Mount with the mounting spring. (Collar comes to operation side.)
Use the spring mounting hook provided. (See the figure right.)

8. Mount the provided water bottle holder, water holder, and water fountain for dampening. Make the mounting position lowest to attach the water bottle holder and fix it with two screws. Set the water holder to the lower plate of water bottle holder. Firmly insert the shorter hose of water holder to the connection portion of water fountain for dampening, and the longer one to clamp at the clamber of water bottle holder. Water fountain for dampening must be fixed firmly with the screws on both sides.



CAUTION

- Water bottle holder should be fixed firmly with a wrench. Fixing screws must be secured with a hand and must not be detached.
- If the fixing screw falls due to loosening causes no printing can be performed by a resultant damage.
If the water bottle holder falls and spilling water inside the machine causing a trouble in printed wiring board or inviting electric shock.



9. Power supply

Connect the machine to AC 100V, 50/60Hz source.

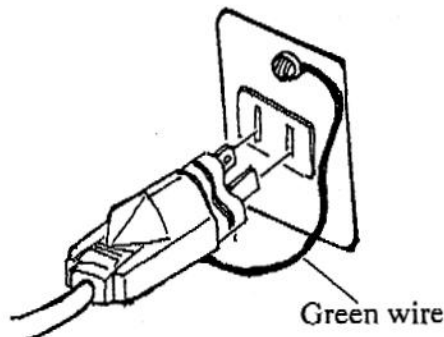
A green wire protruded from the power cord plug should be grounded.

Make this green wire grounded to prevent malfunctions and electric shock.



CAUTION

- For preventing a shock of electricity, never fail to ground the machine.
- Never plugging and unplugging the power cord with a wet hand for preventing a shock from electricity. Also, be sure to hold the plug for plugging and unplugging the power cord.



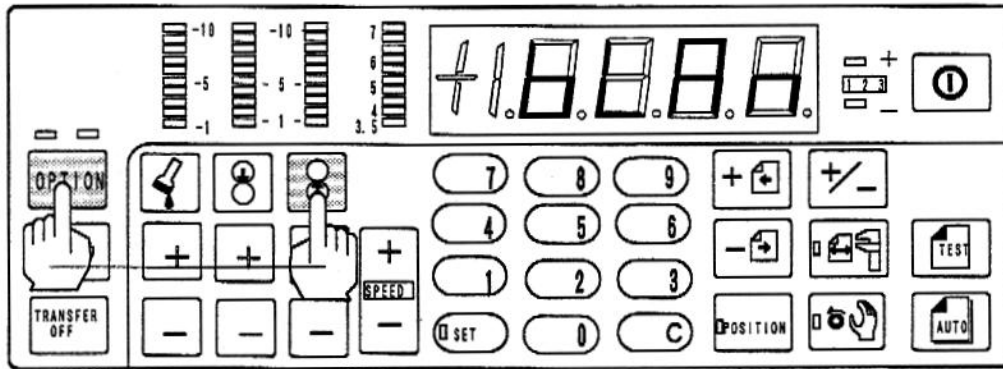
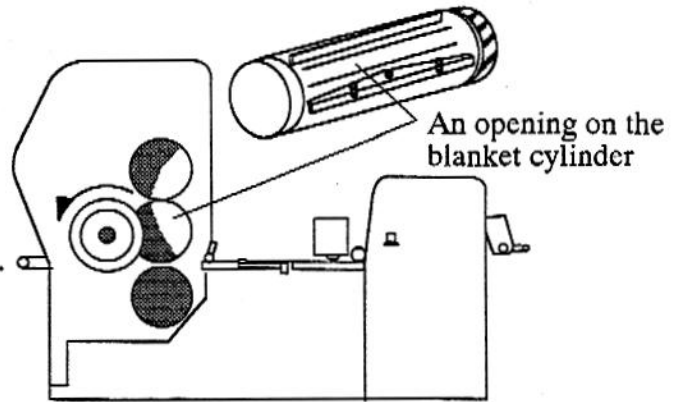
Ground the machine with the green wire.

Mounting the Blanket

Mounting the Blanket

1. Rotate the handle so that an opening on the blanket cylinder can be seen.

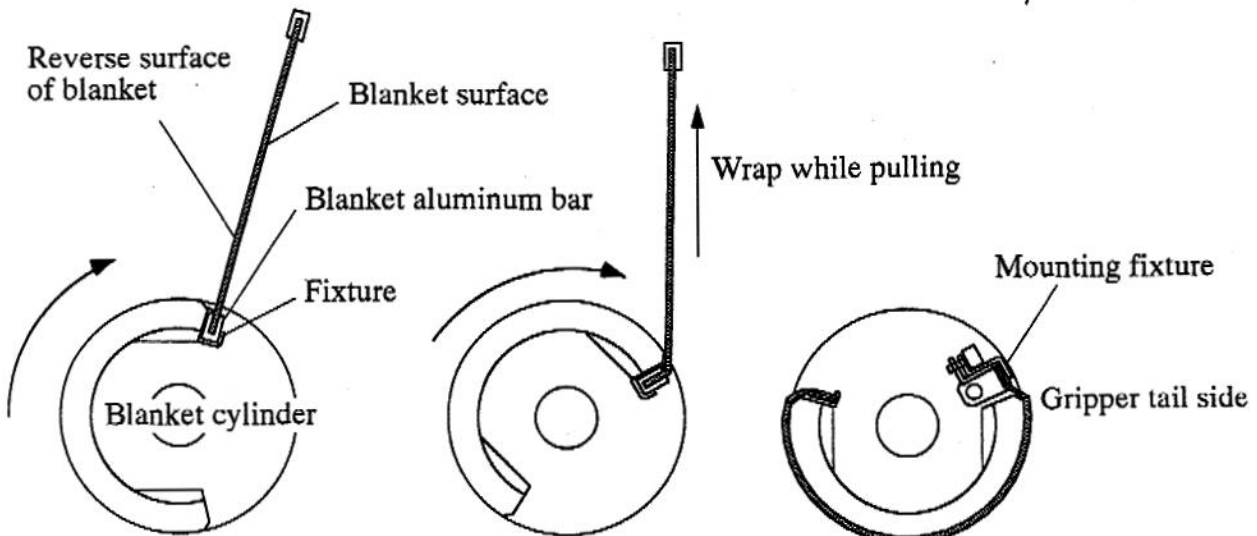
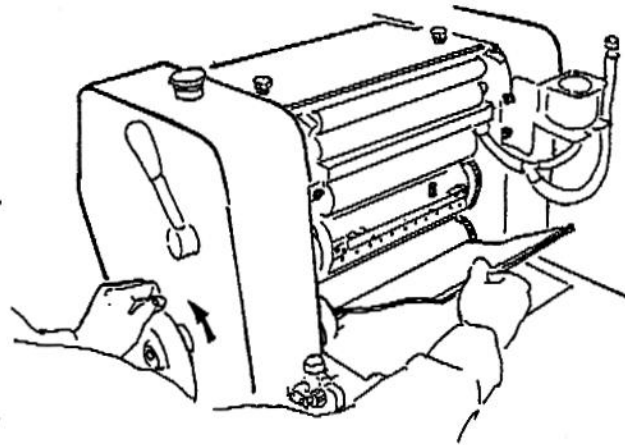
2. While pressing the option key, press the printing pressure key.
- When this mode is selected, an appropriate printing pressure is maintained until the mode is released.
 - " bLAN " shows on the counter.



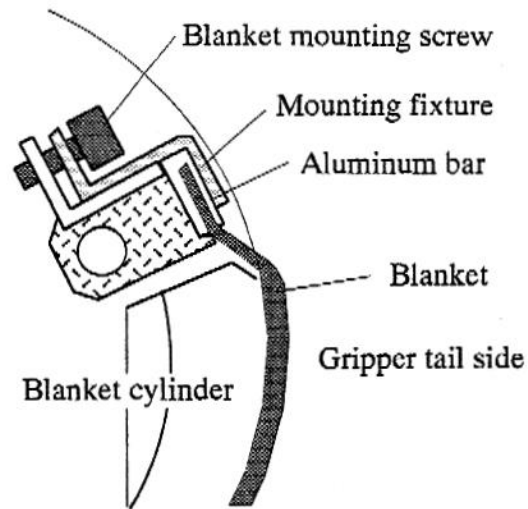
3. Hook the aluminum bar to the fixture.

4. Wrap the blanket.

- While pulling the blanket strongly, rotate the handle counterclockwise.



5. Put the aluminum bar of gripper tail into the mounting fixture.



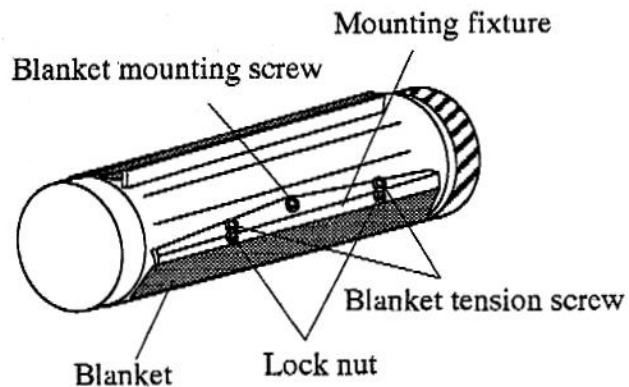
6. Tighten the blanket mounting screw.

7. Tighten the two blanket tension screws evenly.

- As the standard value, apply approximately 6 kgfcm torque.

8. Further to rotate the blanket cylinder one turn, and tighten the blanket tension screws to take out the slackness of blanket.

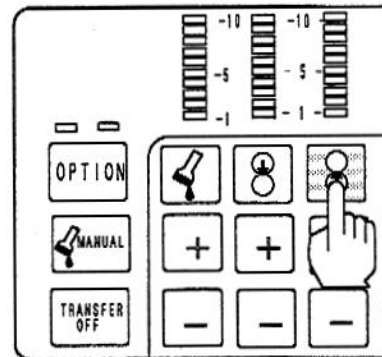
- Repeat this step for two to three times.



9. Lightly secure the lock nuts.

10. Press the printing pressure key.

- The counter indication disappears and the blanket mode is released.



■ Dismounting the Blanket

Do the reverse manner as to mounting, dismount the blanket. The same as to blanket mounting, set the machine to "blanket mode" and start with the gripper tail side to dismount. After dismount the blanket, release the "blanket mode". Note that the machine should not be run when the blanket is dismounted state.

NOTES

- The tension of blanket influences the printing quality. Too strong tension may cause running dots, too weak tension may cause overlap.
- The use of optional torque driver is recommended to put the blanket in even tension.

■ ADJUSTING THE ROLLER PRESSURE

1. Adjusting the Water Supply Section

When overall water supply is exceeded.

- Rotate both operation and non-operation sides drain roller pressure adjustment screws clockwise evenly.

When overall water supply is lesser.

- Check that the dampening adjustment knob is set at extremely counterclockwise.
- Rotate both operation and non-operation sides drain roller pressure adjustment screws evenly counterclockwise.

When left and right water supply is unbalanced.

- Use the drain roller pressure adjustment screws.
- Rotate the screw clockwise for excessive water supply side.
- Rotate the screw counterclockwise for less water supply side.

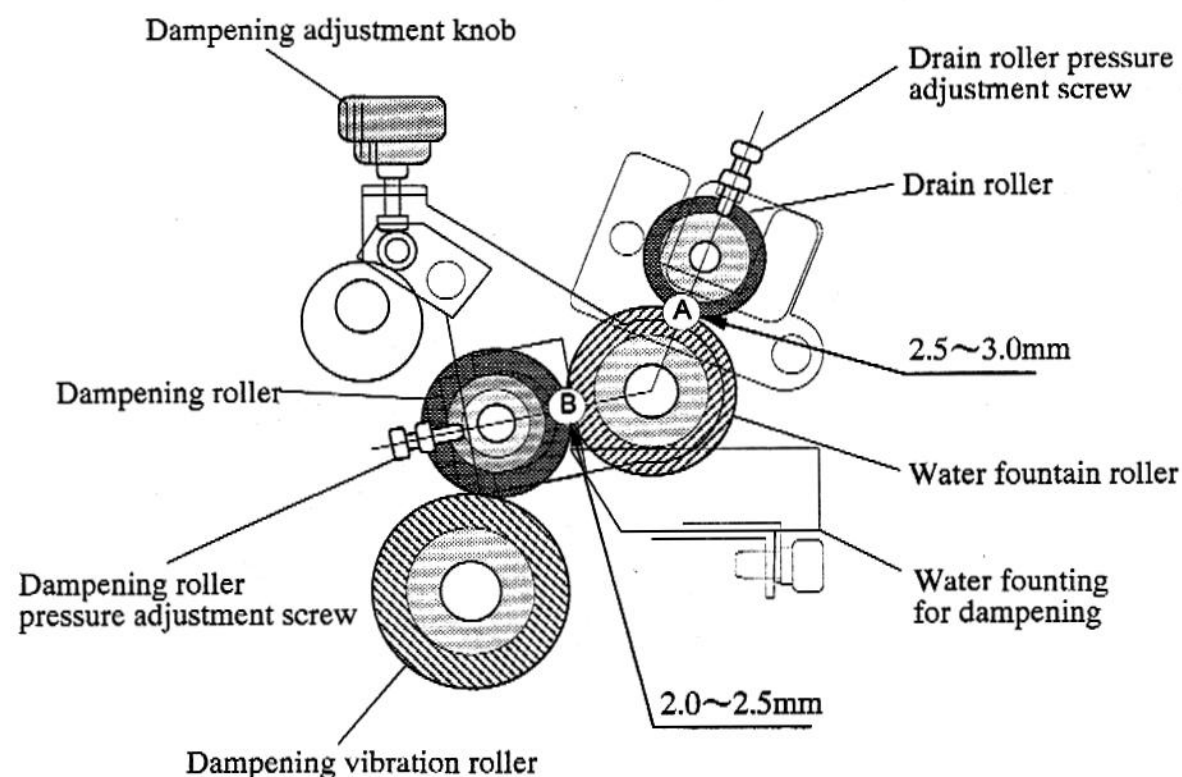
Checking the roller pressure

- Execute the following procedure to check the roller pressure.
 1. Run the machine, then stop the machine for about one minute.
 2. Rotate the handle and check the nip width remained on the roller.

Standard roller pressure:

Drain roller pressure at portion A : 2.5~3.0mm

Dampening roller pressure at portion B : 2.0~2.5mm



Roller arrangement in water supply section

2. Adjusting the Form Roller Section

Adjusting the forming pressure (at portions A, B, C)

- Rotate the forming pressure adjustment screw to adjust the pressure.
Rotate clockwise to reduce, rotate counterclockwise to increase the pressure.
 - Wrap the plate to be used to confirm the forming pressure.
 - At a time to confirm the pressure, position the form roller 1 set near at the gripper of plate cylinder.
 - Follow the below procedure to confirm the forming pressure.
1. While pressing the transfer key, lower the form lever 90 degrees to touch the form roller to the plate.
 2. Return the form lever and put your hand off from the transfer key.
 3. Rotate the handle counterclockwise to check each nip width on the roller.

Adjusting the kneading pressure (at portions D, E, F)

- Rotate the kneading pressure adjustment screw to adjust the pressure. Rotate clockwise to reduce, rotate counterclockwise to increase the pressure.
 - Follow the below procedure to confirm the kneading pressure.
1. Run the machine, then stop the machine for about one minute.
 2. Rotate the handle and check the nip width on each form roller.

Rotate the handle counterclockwise to check the kneading pressures for form rollers 1 and 2.
Rotate the handle clockwise to check the kneading pressure for form roller 3.
Remove the rider vibration roller for checking the kneading pressure of form roller 2.

Standard roller pressure:

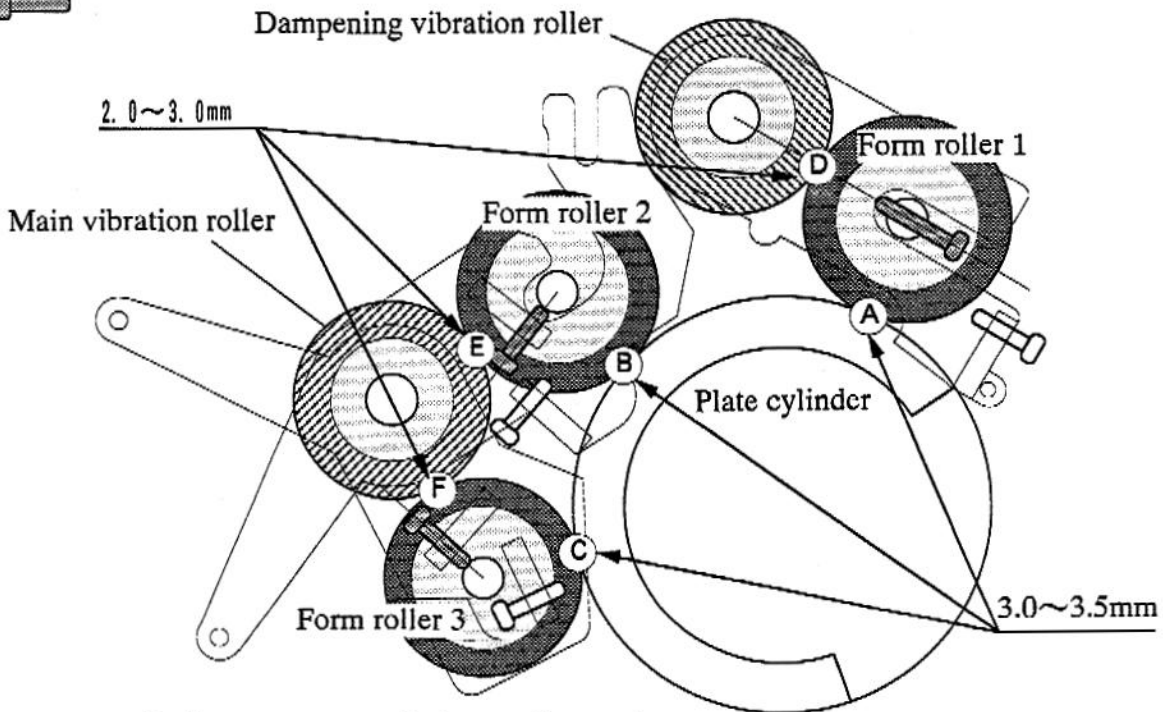
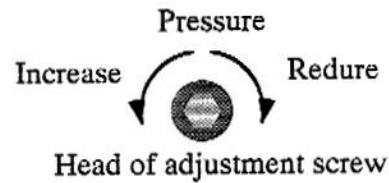
Forming pressure (at portions A, B, C) 3.0~3.5mm

Kneading pressure (at portions D, E, F) 2.0~3.0mm

Forming pressure adjustment screw
(Painted white)



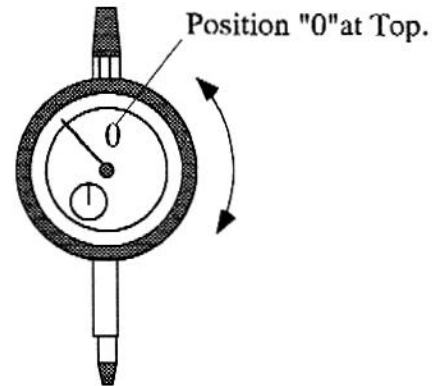
Kneading pressure adjustment screw
(Painted blue)



Roller arrangement in form roller section


■ INSTALLATION OF THE DIAL GAUGE

1. A dial gauge is separately packed in the accessory box.
2. To install the dial gauge, set "0" at top.

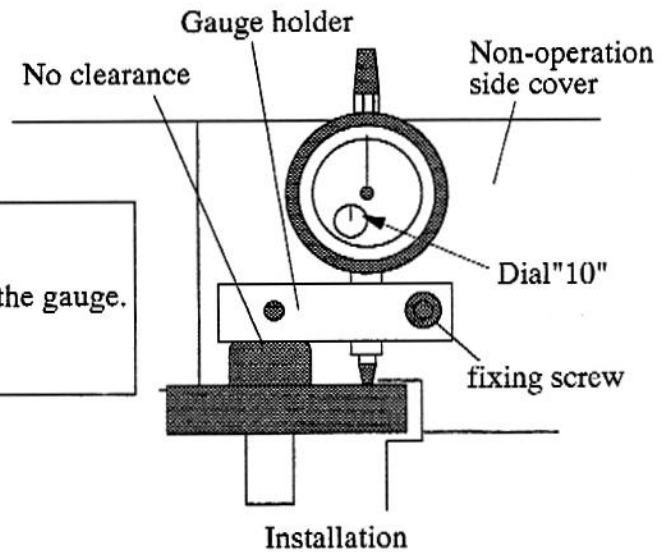


3. Fit the dial gauge to the side adjustment mechanism.
Make sure there is no clearance between the holder and the mechanism block.

4. Set the dial gauge at "10.0", and fix.

 **CAUTION**

- Wrong installation may cause a damage to the gauge.
Make sure to set the gauge as instructed.



5. Slide the side adjustment mechanism until the gauge reads "5.0".
This is the standard setting point.

