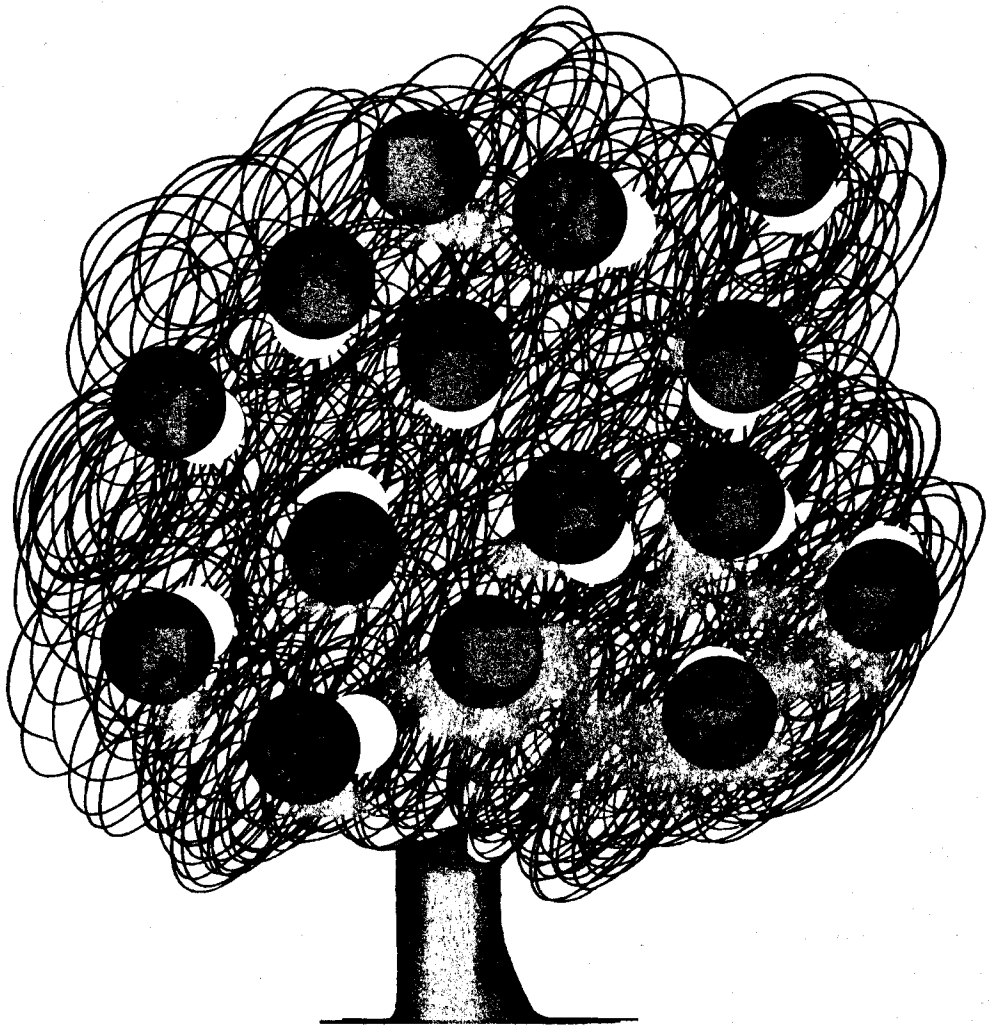


USER'S GUIDE

PRINT GOCCO ARTS



RISO

About This User's Guide

This Guide provides all required information necessary to use your PRINT GOCCO ARTS (for Paper / for Cloth). It is designed to help you take advantage of the features built into the PRINT GOCCO ARTS (for Paper / for Cloth) and provides information on maintenance and troubleshooting.



Indicates information and instruction for PRINT GOCCO ARTS (for Paper).



Indicates information and instruction for PRINT GOCCO ARTS (for Cloth).

Welcome to the world of RISO PRINT GOCCO ARTS, the compact printer that lets you produce high-quality color images. PRINT GOCCO ARTS (for paper) lets you create original greeting cards, artwork, flyers, and direct mail.

You can use PRINT GOCCO ARTS (for cloth) to create exciting original T-shirts, jumpers, sweatshirts, and bags.

The scope of possible applications is limited only by your own imagination.

This USER'S GUIDE is designed to provide you with the basic information you need to use and care for your PRINT GOCCO ARTS printer. After you master the basic techniques, you will be ready to experiment and create your own original techniques.

PRINT GOCCO ARTS

Features

Large-format print

The guides on the paper table and the separate paper guides centered printing on A4 and A3 size paper, as well as proper alignment when printing at a specific position on each page.

Two master sizes

You can use four bulbs to make a normal size master, or you can install a special reflector partition for two-bulb exposure of a half-size master. The half-size master is the perfect size for postcards and other prints that are smaller than 105mm x 165mm (4.1" x 6.5").

Easy positioning of images

A positioning plate and paper guides help to ensure that paper is positioned precisely for each image. The result is beautiful prints every time!

Quick printing of multiple copies

Attaching a partition makes it possible to load more than one sheet of paper for speedier printing of multiple copies.

Master making for screen printing

You can screen print images onto cloth using a special screen master and screen ink.

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Safety Precautions

PRINT GOCCO ARTS is intended for use as a household printer. Never use it for any other purpose except to make masters and final printouts as described in this USER'S GUIDE.

Be sure to carefully read this USER'S GUIDE before using PRINT GOCCO ARTS for the first time.

Warnings and Symbols

The following are the meanings of the warnings and symbols used in this USER'S GUIDE.



Warning

Indicates information that, if ignored or applied incorrectly, creates the danger of death or serious personal injury.



Caution

This symbol indicates information that, if ignored or applied incorrectly, creates the possibility of personal injury or material loss.



Indicates something you should not do.



Indicates something you should do.



Indicates something that requires caution.

Printer



Caution

- Children under the age of 12 should not use PRINT GOCCO ARTS without an adult presence.
- Individuals with weak bones due to osteoporosis or advanced age should not attempt to use PRINT GOCCO ARTS.
The master making step requires application of about 294N (66lbs. of force), which can cause breakage of weak bones.
- When making a master, be sure to grasp the handle with both hands and press straight down. Never press the handle with one hand or with your knee.
- Never leave the upper panel raised with fresh lamps in the lamp housing.
Accidentally touching the lamp actuators (see "General Guide" on page 7) can cause the lamps to fire, creating the danger of injury to your eyes.
- Take care not to pinch your fingers between the upper panel and printer body.
Doing so creates the danger of personal injury.
- Take care not to pinch your fingers on the hinges that attach the upper panel to the printer body.
Doing so creates the danger of personal injury.
- Never drop the printer nor subject it to strong impact.
Doing so can cause the optical glass of the stage to break, creating the danger of cuts or other personal injury.
- The stage is made of glass.
Improper operation can damage the glass.
- Make sure the printer is located on a surface that is strong enough to support application of the 294N (66lbs. of force) required when making masters.

Printer Lamp



Warning





- Lamps are covered with a protective film to ensure safe firing. Never apply paint to this film, do not allow the film to become damaged, and never remove the film.
Doing so can cause the lamp to burst and creates the danger of burn injury.
- Never fire lamps in areas exposed to combustible agents such as gasoline, thinner, lacquer, combustible sprays, dust, etc.
Doing so creates the danger of fire and explosion.



Caution







- Lamps become very hot when fired. Allow lamps to cool for at least three minutes before touching them with your bare hands. Touching a hot lamp creates the danger of burn injury.

Caution

-  Leave lamps in their boxes until you are ready to use them. Remove only the number of lamps you need each time you make a master. Removing lamps from their box too soon creates the danger of damage, spontaneous firing due to static electric charge, and burn injury.
-  Never play with lamps, allow them to become damaged, or expose them to direct flame or heat. Doing so can cause lamps to burst and creates the danger of burn injury.
-  Never use a lamp whose yellow protective film is removed or cracked. A damaged lamp can explode when fired.
-  Immediately dispose of used lamps. Breaking a used lamp or trying to take it apart creates the danger of personal injury.




HiMesh Ink

Caution





-  HiMesh Ink is not edible. Take care that ink is not eaten accidentally by young children, and do not let it come into contact with foodstuffs. If HiMesh Ink is ingested accidentally, do not induce vomiting. Keep the ink on hand and immediately contact a physician.
-  Do not apply HiMesh Ink to your body. If ink gets into your eyes, rinse them immediately with plain water and contact a physician. If ink gets onto your skin, wash it off with soap and water.
-  Make sure the area where you are using HiMesh Ink is well ventilated.
-  Keep the caps of HiMesh Ink tubes out of the reach of children. Caps can be easily swallowed.
-  HiMesh Ink can permanently stain clothing. Make sure you are wearing old or disposable clothing whenever using ink. Work in an area that is away from other items that you want to keep free of stains. HiMesh Ink is permanent. It will not wash out of clothing or other items.
-  Make sure you wash your hands after using HiMesh Ink.

Screen Ink

Warning




-  Make sure the area where you are working is well ventilated before using Screen Ink. Prolonged, continuous inhalation of Screen Ink fumes is harmful. Should Screen Ink fumes make you feel sick or dizzy, move to fresh air immediately.
-  Ingesting Screen Ink is harmful. Should anyone accidentally ingest Screen Ink, contact a physician immediately.
-  Do not allow images printed with Screen Ink to come into direct contact with the skin of infants younger than 24 months.

Caution






-  Do not apply Screen Ink to your body. If ink gets into your eyes, rinse them immediately with plain water and contact a physician. If ink gets onto your skin, wash it off with soap and water.
-  Keep Screen Ink bottles covered when they are not in use.
-  Store Screen Ink in a cool, dark place that is out of the reach of children.
-  Screen Ink can permanently stain clothing. Make sure you are wearing old or disposable clothing whenever using ink. It will not wash out of clothing or other items.

Correction Fluid



Warning

-  Correction Fluid is highly flammable. Never use it near open flame or heat.
-  Make sure the area where you are working is well ventilated before using correction fluid. Prolonged, continuous inhalation of correction fluid fumes is harmful. Should correction fluid fumes make you feel sick or dizzy, move to fresh air immediately.
-  Ingesting correction fluid is harmful. Should anyone accidentally ingest correction fluid, contact a physician immediately.

Caution

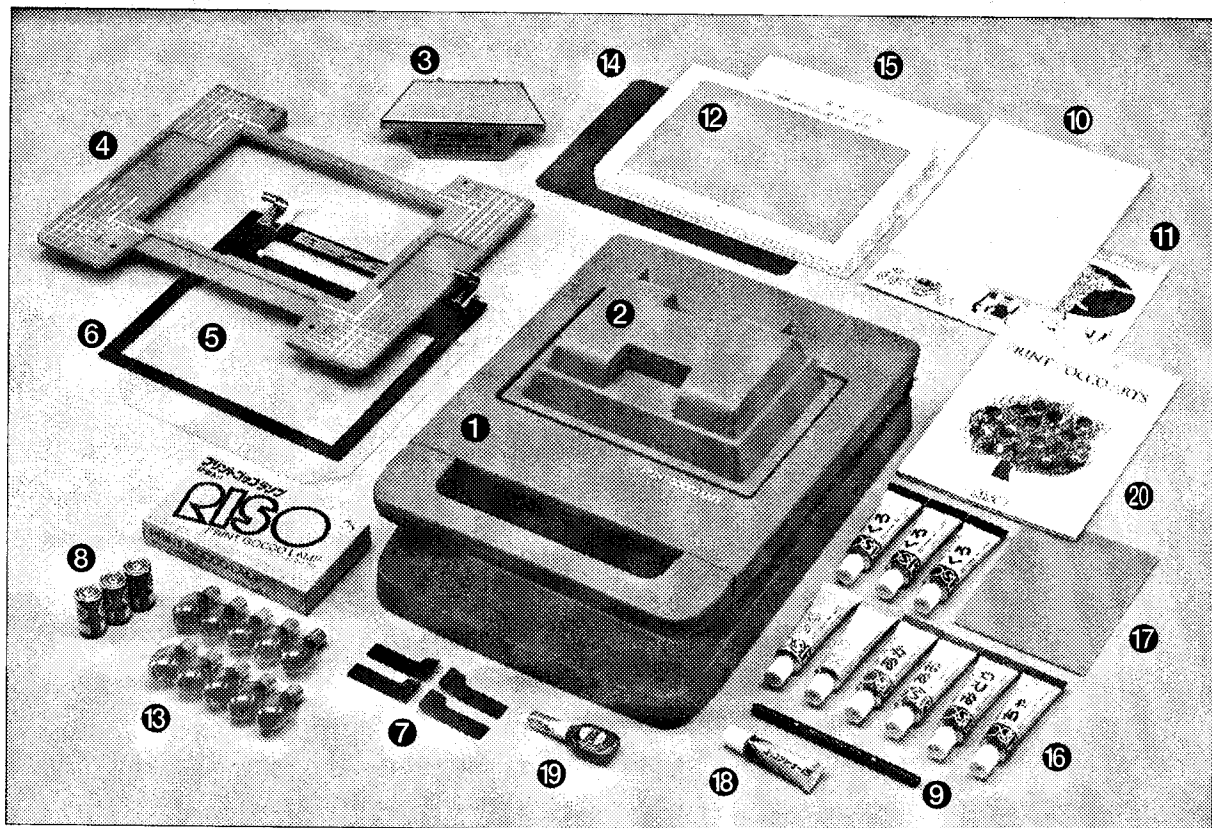
-  Correction fluid is intended for use on a Riso Screen Master only. Never use it for any other purpose.
-  If correction fluid gets onto your skin, wash it off with soap and water.
-  Keep the correction fluid bottle covered when it is not in use.
-  Store Screen Ink away from open flame in a cool, dark place that is out of the reach of children.
-  Dispose of the correction fluid bottle after using up all of its contents.

Other

-  Be sure to wash your hands thoroughly after you finish working.
-  When using a hairdryer to dry prints, make sure to take care to avoid burn injury and scorching of the paper. See the documentation that comes with the hair dryer for further precautions.

Set Contents

Check to make sure all of the following items are included in your PRINT GOCCO ARTS (for Paper).



Set Contents (for Paper)

- ① PRINT GOCCO ARTS Printer 1 unit
- ② Lamp Housing 1 piece
- ③ Reflector Partition 1 piece
(Pre-installed in Lamp Housing)
- ④ Paper Table 1 piece
- ⑤ Positioning Plate (Pre-installed in Printer) ... 1 piece
- ⑥ Separator 1 piece
- ⑦ Paper Guide Red, Black 2 pieces each
- ⑧ C-size Battery 3 pieces

Items Required for Preparation of Original

- ⑨ Riso Pen Twin (Medium & Thick) 1 piece
- ⑩ Design Sheet 1 copy
- ⑪ Clipart Sample Leaflet 1 copy

Items Required for Making a Master

- ⑫ Riso HiMesh Master B5 ... 1 pack (5 sheets)
- ⑬ Print Gocco Lamp 2 packs (20 bulbs)
- ⑭ Filter B5 Blue 1 sheet
- ⑮ Original Underlay 1 sheet

Items Required for Printing

- ⑯ Riso HiMesh Ink Black 3 tubes
Blue, Red, Green, Brown, Yellow, White ... 1 tube each
- ⑰ Ink Blocker 1 pack (2 sheets)
- ⑱ Gocco Cleaner 15 1 tube
- ⑲ Master Correction Fluid 1 bottle

Other

- ⑳ USER'S GUIDE 1 copy

Specifications

Printing Method	Flashbulb Master-Making System, Press Printing System
Printing Area	165mm x 235mm, 6.5"x 9.3"
Power Requirements	3 C-size batteries
Dimensions	400(W) x 460(D) x 180(H)mm 15.7"(W) x 18.1"(D) x 7.1"(H) (printer unit with lamp housing installed)
Weight	Approximately 5.0kg, 11.0 lbs.

*Specifications and set contents are subject to change without notice.



General Guide

Handle

Press down on the handle with both hands when making a master and when printing.

Actuators

Pressing down on the handle when making a master causes the actuators to contact the stoppers, which supplies the current that fires the lamps.

Stage Glass

Master Holder (for paper)

Separator (for paper)

Hinge

Print Pad

Upper Panel

Master Guide Rail (Upper)

Master Stopper (for paper)

Master Guide Rail (Lower)

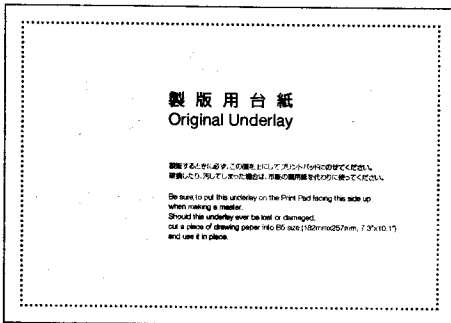
Shaft (for paper)

The separator connects to this shaft.

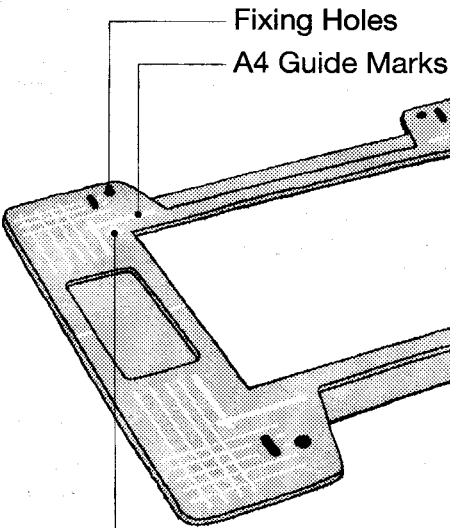
Stoppers

Original Underlay

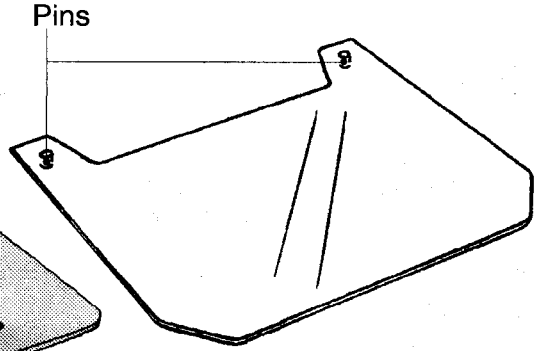
Place the original underlay on the pad when making a master. If this underlay becomes damaged or lost, you can use a B5 size (182mm x 257mm, 7.2" x 10.1") piece of paper cut to fit.



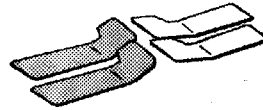
Paper Table (for paper)



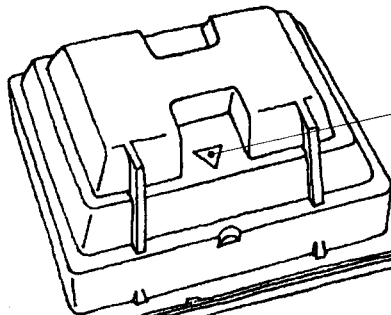
Positioning Plate (for paper)



Paper Guides (for paper)



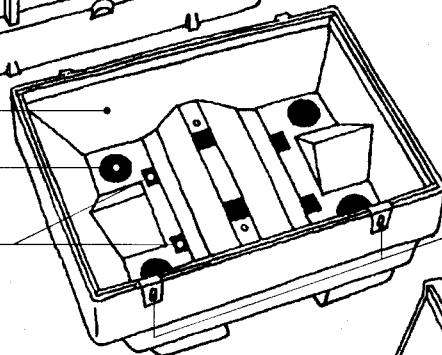
Corner Mark (▼)



▼ Mark
Always check the orientation of the ▼ mark when installing the Lamp Housing.

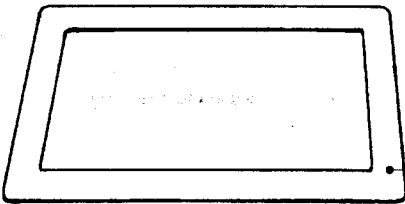
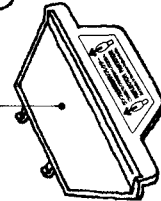
Lamp Housing

- Reflector
- Lamp Socket
- Reflector Partition Holes (for paper)



Lamp Housing Contacts

Reflector Partition (for paper)
Install the reflector partition when creating a half-size master with two lamps.

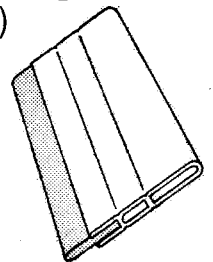


Printing Frame (for cloth)
Stretches a master when printing.



Frame Pincher (for cloth)
Secure the master to the Printing Frame when printing.

Riso Squeegee Plate (for cloth)





Tips for Better Printing

Note the following points to ensure that your PRINT GOCCO ARTS

Work Area

Work in an area where the temperature is between 15°C and 30°C (59°F and 86°F).

Cold temperatures make it impossible to make an acceptable master. It can also cause ink to harden, leading to smudged prints.

Beware of condensation caused by sudden temperature change.

Moving PRINT GOCCO ARTS from the cold into a warmer area can cause condensation to form. Good master results are not possible while condensation is present. Wait until the moisture is completely dried before using PRINT GOCCO ARTS for master-making.

Beware of high humidity.

High humidity makes it impossible to make an acceptable master from the original. Try drying the original with a hair dryer before making the master. When using an original that has been moved from the cold into a warmer room or an original created using ink, make sure the original is completely dry before using it to make a master.

Handling Ink

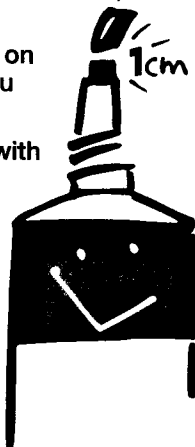
When using a new tube of HiMesh Ink or a tube you have not used for a long period, discard the first 1 cm (0.4") of ink.

Using the first 1 cm (0.4") of ink may result in poor printing results.

Make sure you replace the cap on the tube of HiMesh Ink when you finish using it.

Screen Ink is intended for use with the Riso Screen Master Series only.

Make sure Screen Ink is thoroughly mixed before using it.



Handling the Lamp Housing

Treat the Reflector and Stage Glass carefully.

Never touch the Reflector with your fingers. Fingerprints and smudges can interfere with proper concentration of light when making masters. Should the Reflector become smudged or soiled, wipe it with a soft, dry cloth.

Never put ink tubes or any other objects inside the Lamp Housing.

Objects coming into contact with the Reflector can scratch its surface and interfere with proper concentration of light when making masters.

Immediately after firing the lamps, remove the Lamp Housing from the printer and place it on a stable surface with the lamps facing up. This allows heat to escape.

Placing the Lamp Housing on a table with the lamps facing down can cause clouding of the Reflector.

Clean Up and Storage

Printer Unit

Remove batteries from the printer.

Batteries left in the printer can leak and cause damage.

Place a sheet of paper on the Print Pad.

The pad has an adhesive surface, which can become stuck to the stage. Be sure to use paper to cover the pad. Plastic or cellophane food wrap may adhere to the pad too strongly and become difficult to remove.

To clean ink from the Stage Glass, put some Gocco Cleaner 15 on a piece of tissue paper and wipe it off.

Store the printer in its original package.

Avoid storage in areas exposed to direct sunlight and high humidity, and never place heavy objects on the printer. Any of the above can cause deterioration of the Print Pad.

Lamps, Masters, Ink, and Other Disposables

The method you should use to dispose of used lamps, masters, ink, and other refuse depends on the local regulations in your area.

Be sure to dispose of all refuse in accordance with local regulations.

always operates at the level for which it is designed.

Cleaning the Printer

When the printer is soiled with HiMesh Ink, use Gocco Cleaner 15 to clean it.

When the printer is soiled with Screen Ink, use a damp rag to clean it.

To clean ink from the Stage Glass, put some Gocco Cleaner 15 on a piece of tissue paper and wipe it off.

Ink on the Stage Glass will burn when you fire lamps to make masters, and result in poor quality masters.

Do not use Gocco Cleaner 15 to clean the Reflector. Doing so causes clouding of the Reflector.

Use only Gocco Cleaner 15 for cleaning.

Never use thinner or other similar agents, which can cause discoloration and deformation of the printer's plastic parts.

Parts Replacement

Never try to take the printer apart, except to replace parts as described in this User's Guide. When replacing parts, perform disassembly only as instructed.

The Reflector, Print Pad, and Stage Glass are the most vital parts that make up the printer.

Replacement parts for these items are available should the original parts become damaged. After long periods of use, the Reflector and Print Pad also deteriorate naturally. Poor quality masters or blur of prints may indicate that it is time to replace the Reflector or Print Pad. Though the actual life of components depends on operating conditions, you can expect to replace vital components about once every five years.

Handling Screen Masters

Take a Screen Master out of the plastic bag just before use.

Keep the master in a plastic bag after the master making process if you do not start printing at once.

Be sure to secure the Printing Frame to the master when printing.

Battery Replacement

Always load a fresh set of batteries before printing.

Be sure to check the recommended expiration date of batteries.

Batteries lose power even when they are not being used.

Do not use batteries whose recommended expiration date has passed.

Never mix old batteries with new ones.

Never mix batteries of different types (alkaline and manganese).

When storing batteries, avoid areas subject to high humidity and temperatures.

Be sure to note and follow all the precautions marked on batteries.

Printing Precautions

The amount of time required for prints to dry depends on temperature and humidity conditions. Before stacking prints on each other, test the ink for dryness by lightly touching the printed surface with a piece of tissue paper.

The reproduction of monetary notes, government-issued securities, uncanceled postage stamps, and other similar items, even for private use, is punishable under the laws of many countries.

Never use this printer to copy securities (bonds, postage stamps, etc.), passports, identification documents, or other items issued by your government.

Unauthorized reproduction of books, photographs, and other copyrighted materials, except for the private use of you and your family is forbidden.

Printing on Cloth

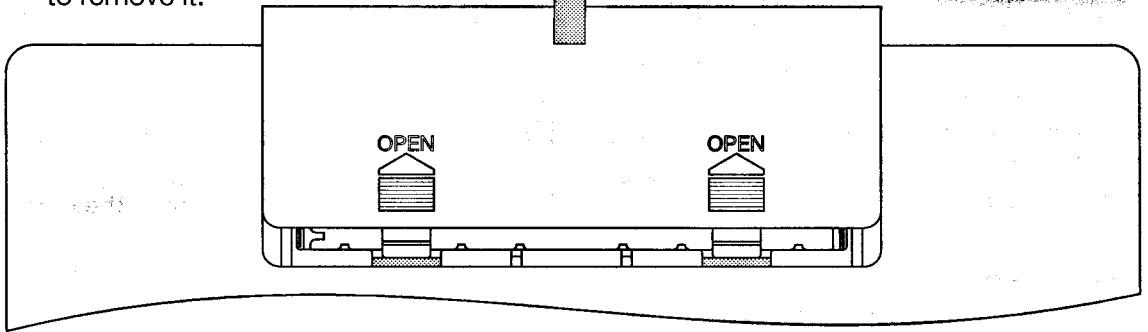
Avoid printing on the following types of cloth.

Cloth that is less than 50% cotton; cloth that contains nylon; terry cloth, velvet, or other cloth with a bumpy surface; cloth treated with starch or water proofing; very coarse knit cloth

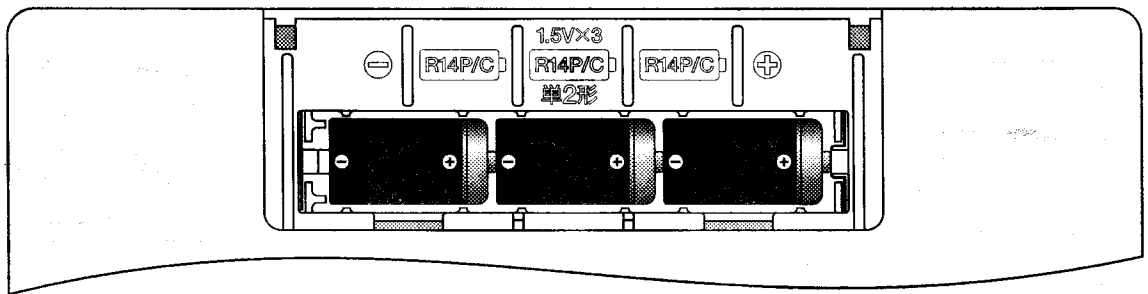
Getting Ready

Load batteries.

1. Pressing down at the two points marked OPEN on the battery cover, slide in the direction of the arrow to remove it.



2. Load three C-size batteries, taking care that their + and - ends are facing correctly. Next, replace the battery cover.



Remove the positioning plate from the printer (for paper).

1. Holding the Positioning Plate near the pins, lift it from the printer.
2. Remove the two sheets of transparent film (top and bottom) from the Positioning Plate.

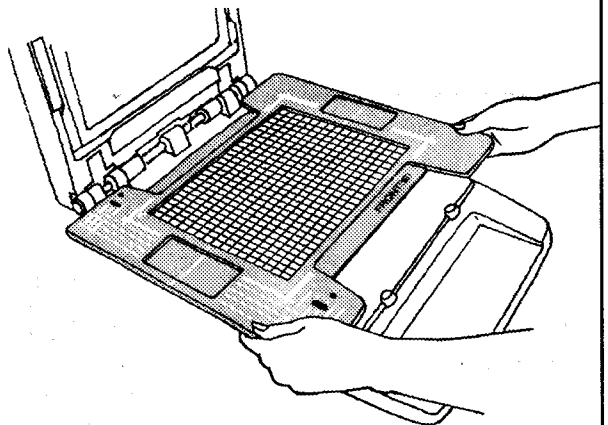
Remove the Reflector Partition from the Lamp Housing (for paper).

Remove the transparent film from the Print Pad.

The Print Pad has a sticky surface that keeps the printed paper from adhering to the master during printing.

Set the Paper Table onto the Print Pad (for paper).

Make sure the side of the Paper Table marked "FRONT" is facing towards you. Press down on the Paper Table to it is the same height as the Print Pad.



Preparing the Original

プリントゴッコ 原稿用紙B5 Design Sheet for PRINT GOCCO B5 and PRINT GOCCO ARTS

原稿は、理想ペンでおかきください。「プリントゴッコアート」は外枠、「プリントゴッコB5」は内枠、「リガキ」は方眼枠の枠内におかきください。

With a Riso Pen or carbon containing writing instruments, draw inside the outer solid frame for Print Gocco Arts and the inner broken frame for Print Gocco B5.

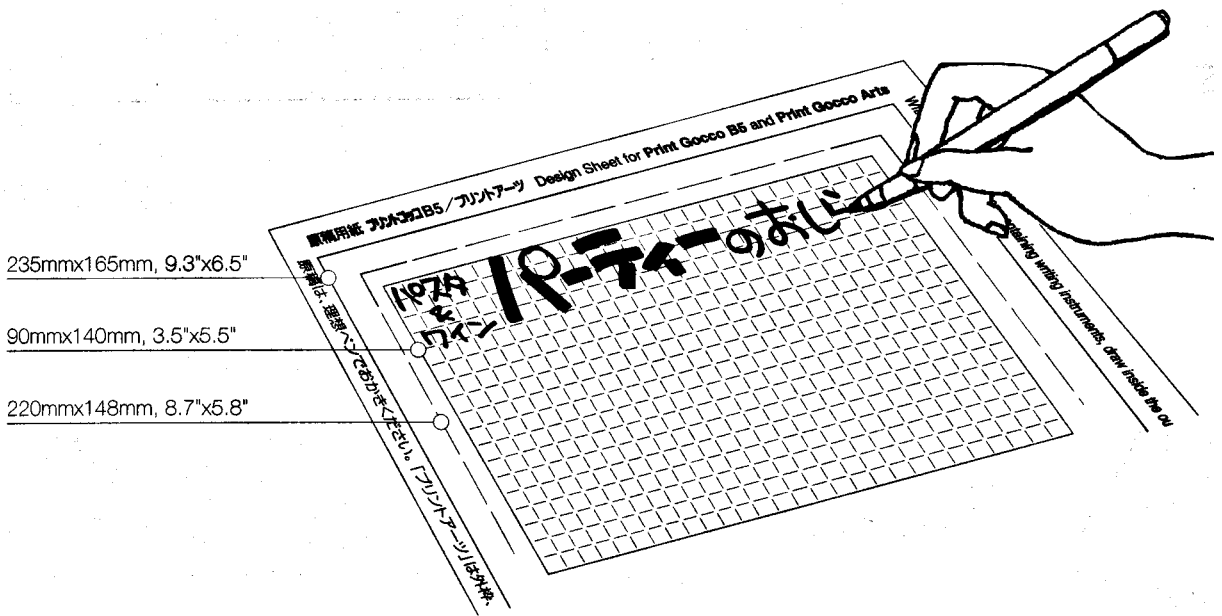


RISO

Leave a margin around graphic elements, and always secure them in place with adhesive tape.

Never use paste or double-sided tape to fasten graphic elements. Doing so can result in a poor quality master.

Use clear adhesive tape. Do not use tape that has illustrations or text on it.



235mmx165mm, 9.3"x6.5"

90mmx140mm, 3.5"x5.5"

220mmx148mm, 8.7"x5.8"

Layout your original within the outer frame (235mm x 165mm, 9.3" x 6.5") of the Print Gocco B5 Design Sheet.

For postcards, use a grid block (90mm x 140mm, 3.5" x 5.5").

When using a Print Gocco B5, layout your original within the inner lines (220mm x 148mm, 8.7" x 5.8").

Draw illustrations for printing onto cloth inside 235mm x 145mm, 9.3" x 5.7". Shading, fine lines, small lettering, etc. easily becomes blurred when printed onto cloth. Because of this, you should use thick lines and keep designs relatively simple.

Use a Riso Pen or other carbon black based writing materials.

The following are typical carbon black based writing materials.

Pencils (B or 2B), black crayons, charcoal, pastel black, Chinese ink or India ink diluted to a ratio of 2-to-1.

Place the design sheet on firm cushioning materials when drawing on it.

Writing on a soft surface or pressing down so hard that lines or text are impressed in the paper results in a poor quality master. Figures and lines written over areas covered with correcting fluid will not show up on the master.

Notes

When using a graphic element other than those contained in the Clipart Sample Leaflet, good results can be obtained by copying the graphic element on a carbon toner based plain paper copier (PPC). Note the following points when using a copied element.

- Copy the pattern at a relatively low print density.
- Use correction fluid to remove any spots or other unneeded marks from the copy.
- Always use a Filter B5 Blue when making a master from a copied original.

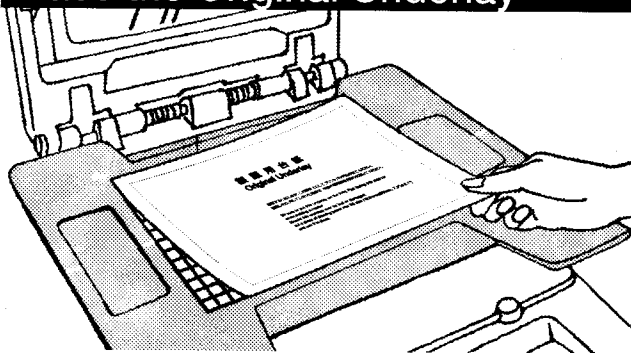
When using a copied element in combination with other elements drawn with a Riso Pen, copy the final original again after laying them out.

If double-sided tape or paste has been used to lay out graphic elements, copy the final layout and use it as an original.

When using paper other than the Print Gocco B5 Design Sheet, use high-quality white paper only. Glossy paper (art paper or coated paper) and tracing paper are not suitable for use as an original.

Making a Master

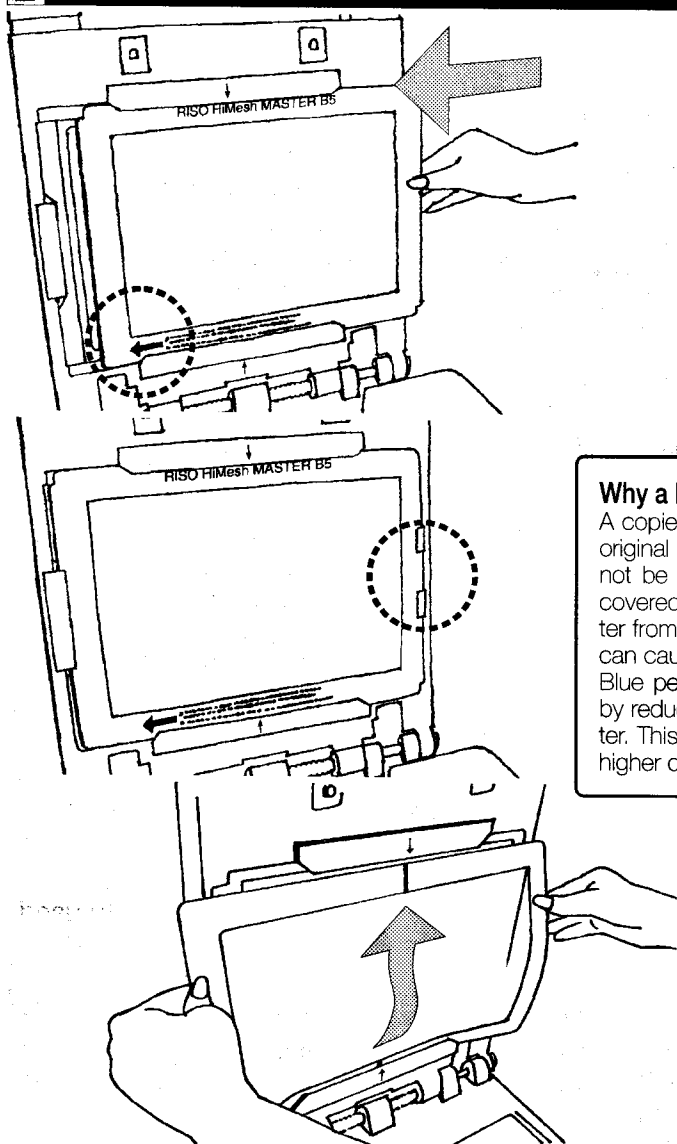
1 Place the Original Underlay



Place the Original Underlay on the Print Pad.

At this time, you should also confirm that the transparent film is not on the pad, and that the positioning plate is removed from the printer.

2 Set the master



Slide the master into the master holder in the direction indicated by the arrow marked on the master frame.

The transparent film side of the master should be facing the Stage Glass.

Slide the master all the way in until it comes into contact with the master stopper.

If your original is a copy produced on a copier, place a Filter B5 Blue on the transparent sheet side of the master, and slide the filter and master together into place up to the master stopper.

Why a Filter B5 Blue is required for a copied original...

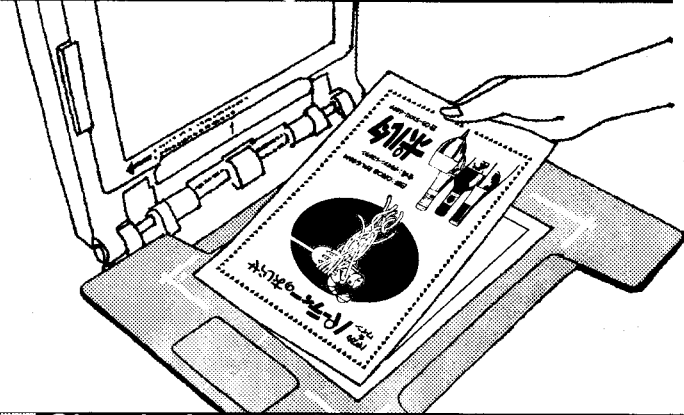
A copied original tends to have more carbon on it than an original that has not been copied. Even though you may not be able to see it, the surface of a copied original is covered by fine particles of toner. When you make a master from a copied original, the fine toner particles burn and can cause ugly blotches on the final printout. The Filter B5 Blue performs the same function as a pair of sunglasses by reducing the intensity of the light that reaches the master. This cuts down on carbon burn and provides you with higher quality printed results.

For Cloth

With the film side of the master facing towards you, align the center mark of the master with the guide rail arrow (↓).

Insert the bottom of the master into the Master Guide Rail (Lower) first, bend the master slightly, and then insert the top of the master into the Master Guide Rail (Upper).

3 Place the original

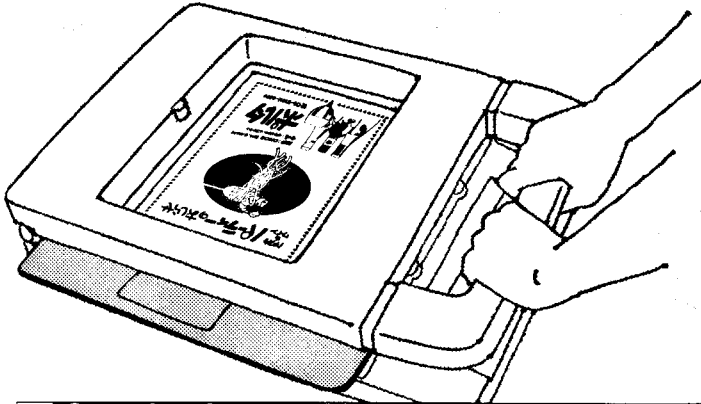


Place the original face up on the Original Underlay. Align the original with the corner mark (▼) on the paper table.

Note

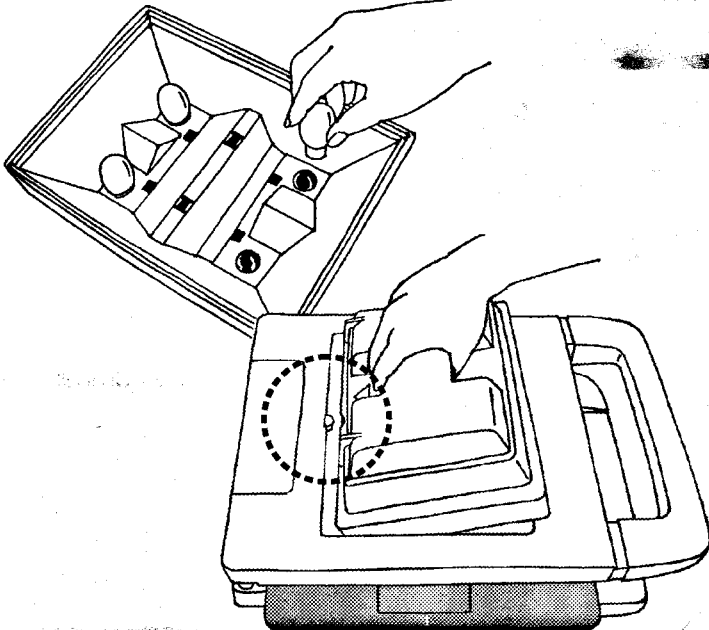
Making a master from a valuable original
Firing the lamps to make the master causes the original to adhere to the master. This lets you use the original as a guide when applying ink to the master. Application of ink, however, can soil the original. Because of this, you should always use a copy whenever making a master from a valuable original that you do not want to become damaged.

4 Check the position of the original



Lower the upper panel and check the original through the Stage Glass, ensuring that it is positioned correctly.

5 Set the Lamp Housing

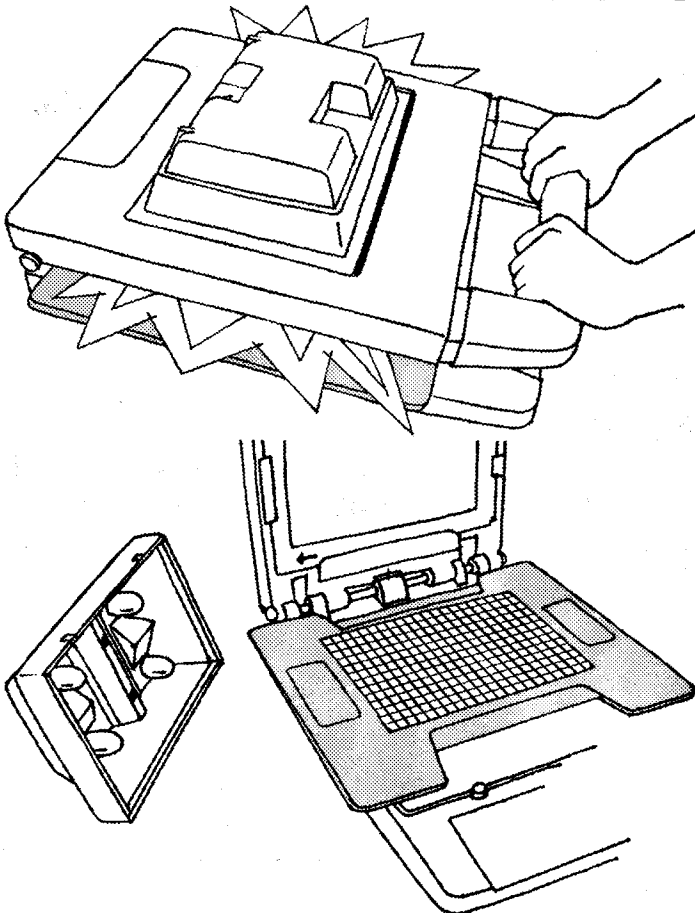


Load four Print Gocco Lamps into the Lamp Housing.

Aligning the contact points of the lamps with the lamp sockets, and turn the lamps to the right until they stop. At this time, also make sure the Reflector Partition has been removed from the Lamp Housing.

With the upper panel lowered, make sure the ▼ mark on the Lamp Housing is aligned with the salient on the printer. Lower and secure the Lamp Housing to place as shown in the illustration.

6 Fire the lamps



Holding the handle firmly with both hands, strongly press down on the handle until the lamps fire.

For information about printing on cloth, proceed to the step in "Test Printing" on page 22 after this step.

⚠ Caution

Individuals with weak bones due to osteoporosis or advanced age should not attempt to use PRINT GOCCO ARTS. The master making step requires application of about 294N (66lbs. of force), which can cause breakage of weak bones.

⚠ Caution

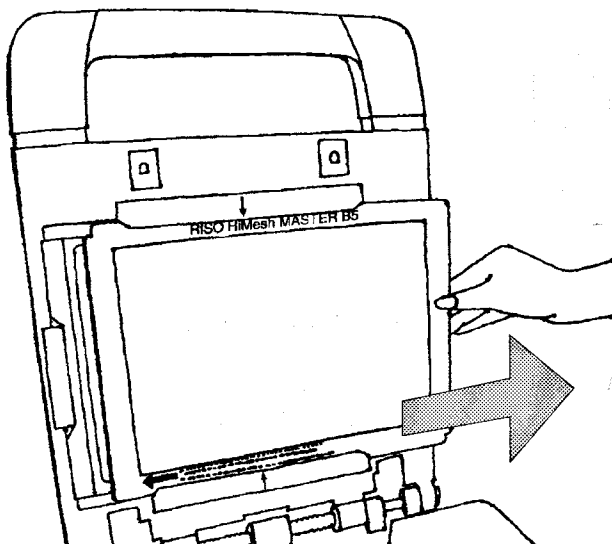
When making a master, be sure to grasp the handle with both hands and press straight down. Never press the handle with one hand or with your knee.

Remove the Lamp Housing and raise the upper panel. Lay the Lamp Housing down so the lamps are facing upwards or to the side.

⚠ Caution

Lamps become very hot when fired. Allow lamps to cool for at least three minutes before touching them with your bare hands.

7 Remove the master



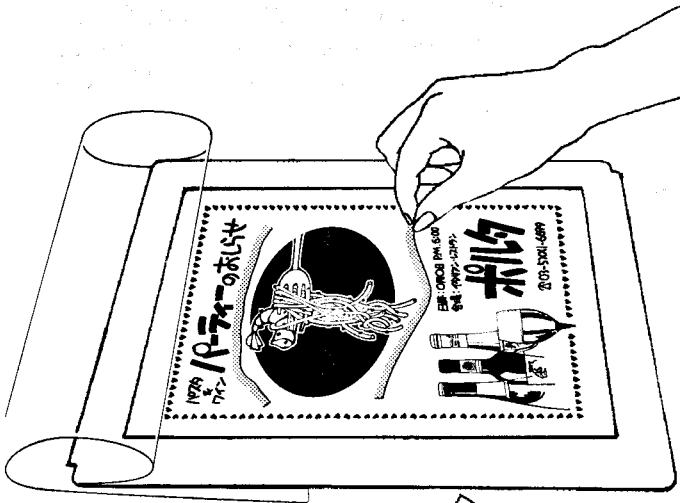
Remove the master with the original affixed to it.

Do not remove the original from the master at this time, because it provides you with a guide when applying ink.

If you are using a Filter B5 Blue, remove the filter and put it aside for later use. Note that you can use a filter a number of times.

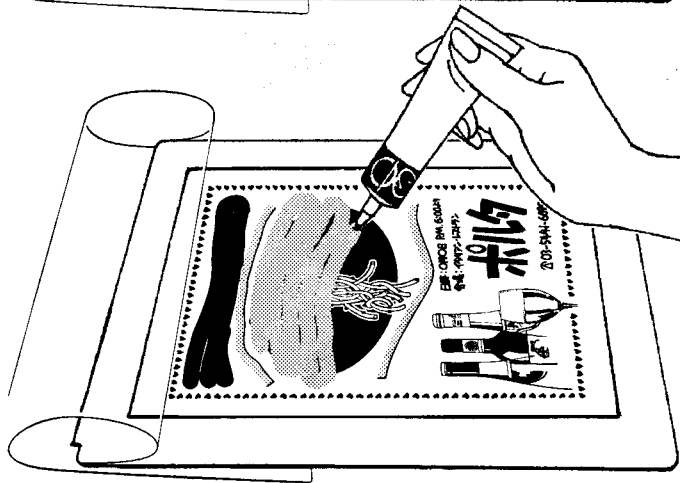
Applying Ink

Apply ink



Fold back the master's transparent sheet and position ink blockers around illustrations and text.

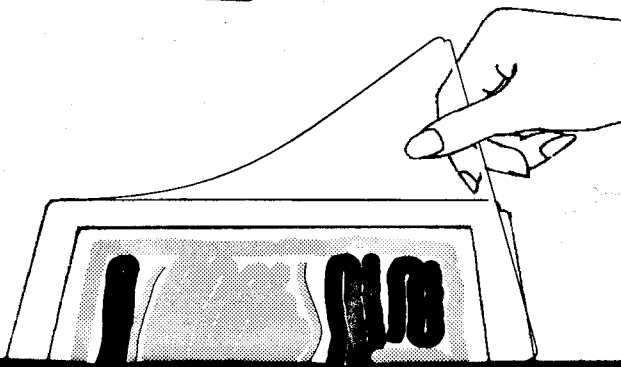
Ink blocker keeps ink in one section from bleeding over to another section.



Apply liberal amounts of ink on the figures that are visible through the master.

Apply ink liberally, so it is about 3mm (0.1") thick, which is about the thickness of the ink as it leaves the tube. See "Ink Application Techniques" on page 37-38.

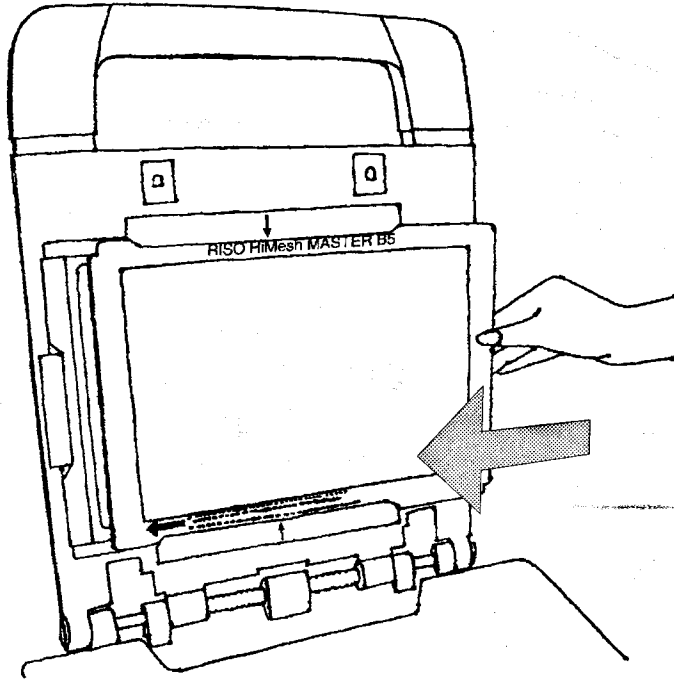
If ink gets onto the printer, use Gocco Cleaner 15 to remove it.



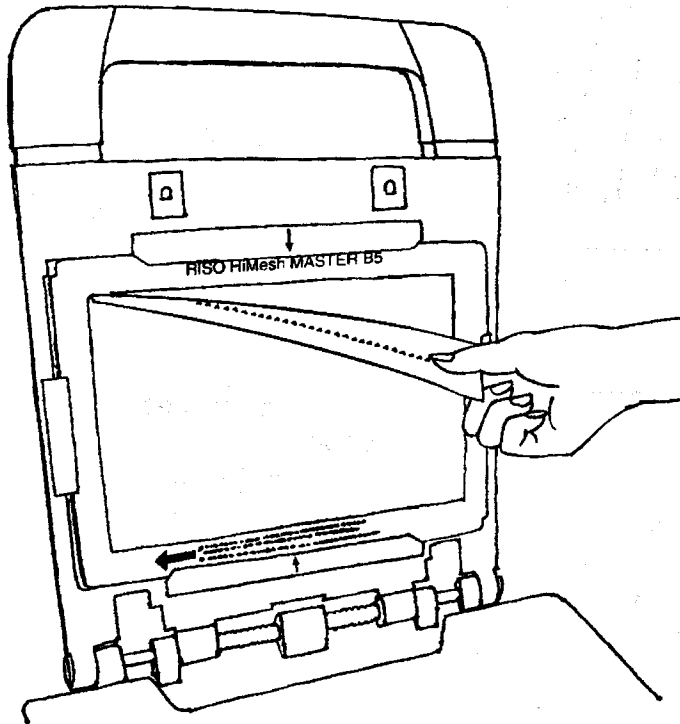
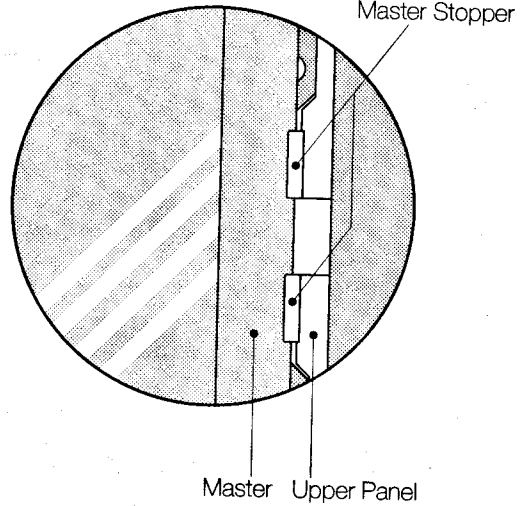
Return the transparent sheet to its original position.

Printing

1 Set the master

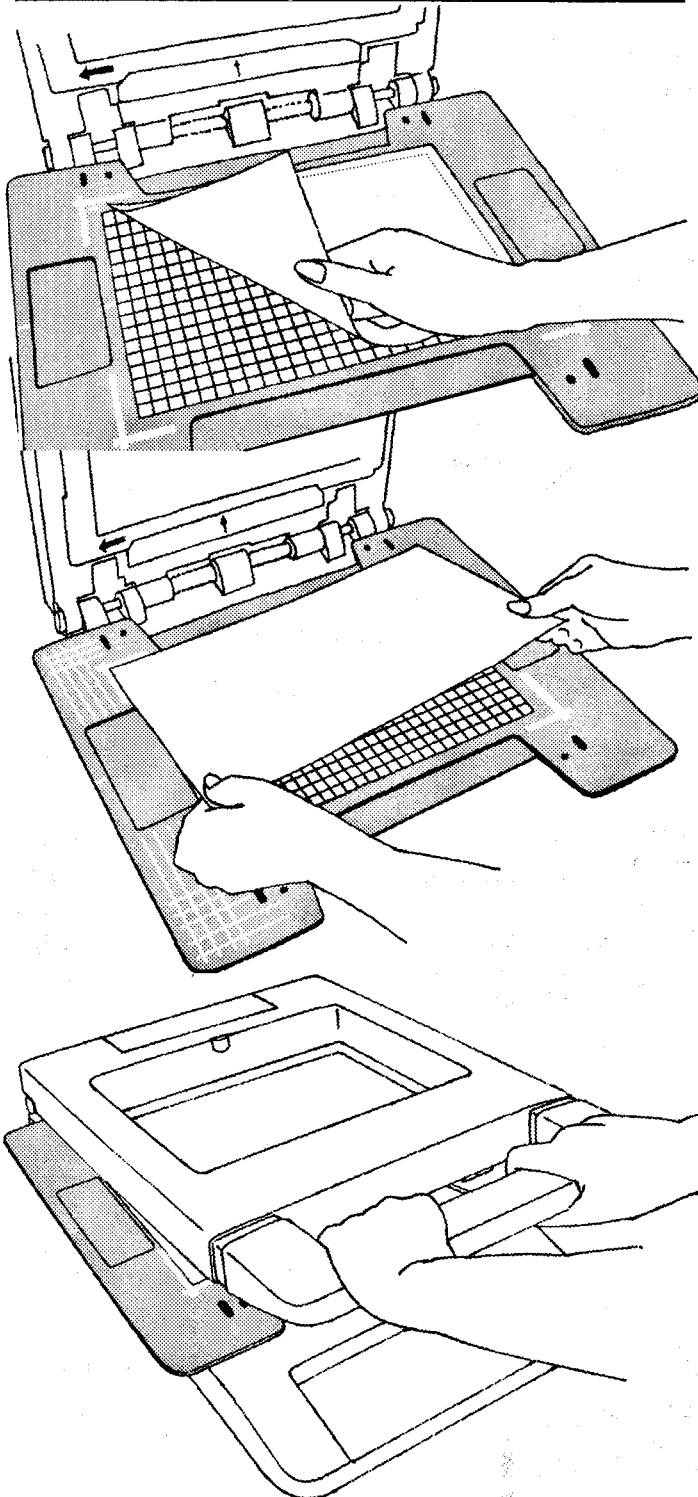


With the original still attached to it, slide the master into the Upper Panel until it is securely inside the Master Stopper.



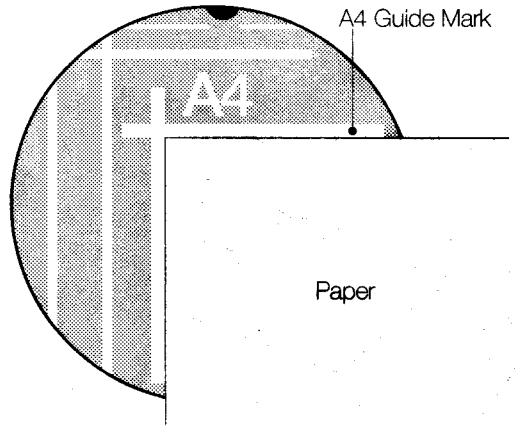
Peel the original from the master.

2 Make a test print



Remove the Original Underlay from the Print Pad.

Place the print paper onto the pad, aligning it with the A4 size guide marks on the paper table.



Lower the upper panel and press down with both hands on the handle to make a test print.

⚠ Caution

Be sure to grasp the handle with both hands and press straight down. Never press the handle with one hand or with your knee.

Open the upper panel and remove the test print. Check for blurring of ink and for proper positioning of the printed image on the paper.

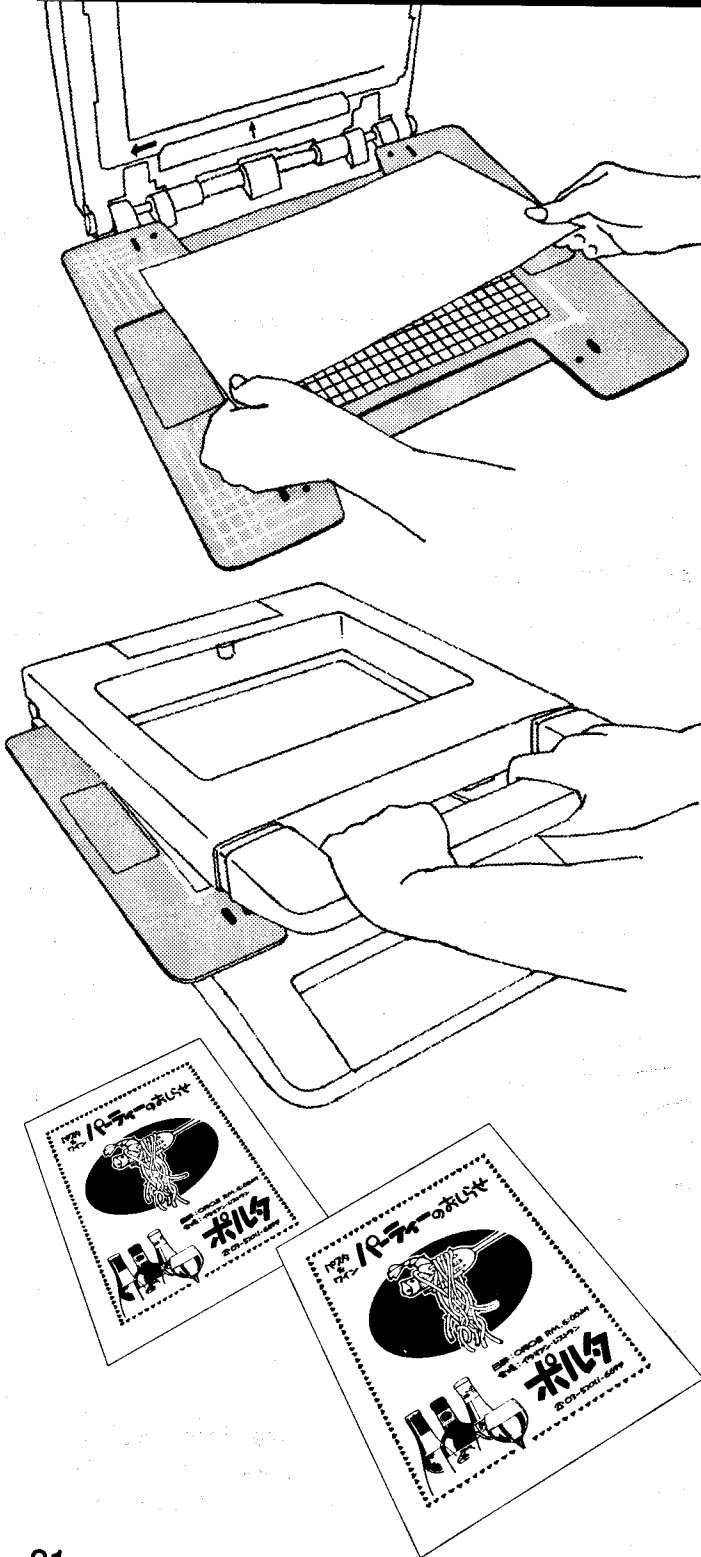
If there is any unwanted ink on the print, use the special Master Correction Fluid to make the corrections you want.

⚠ Caution

See the Master Correction Fluid precautions for details on its proper use.

After you make corrections, place another piece of paper on the printer and make another test print to check the results.

3 Print



Place sheets of paper on the Print Pad one-by-one, aligning each one with the A4 size guide marks on the Paper Table.

When using paper sizes other than A4, use the guide marks on the Paper Table to position the paper.

Do not stack printed pages on top of each other until ink is completely dry. If you want to check the alignment of the printed figures before actually starting printing or if you need more precise alignment for overprinting, use the Positioning Plate. See "Checking the Position of Printed Figures" on page 29.

You can also place multiple sheets of paper on the printer for consecutive printing. See "Consecutive Printing" on page 31.

After you finish printing, remove the master from the printer and place the Original Underlay or a sheet of paper on the Print Pad. See "Clean Up and Storage" on page 9.

As a general rule, inked masters cannot be stored for later use. Ink tends to dry over time, which produces poor printing results.

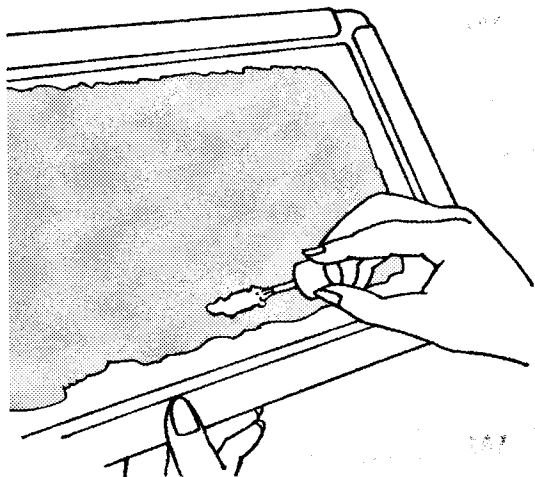
However, you may be able to obtain acceptable results from a reused inked master that was stored a short while in a sealed plastic bag.

Paper

Fine, medium-fine paper, and drawing paper works best for printing. Paper thickness can be anywhere from 0.1mm to 1.0mm. The following types of paper are not recommended for printing.

- Glossy finish art paper or coated paper
- Paper thinner than 0.1mm
- Rigid paper
- Paper with a very coarse grain or rough surface

4 Make corrections to the master



Check the test print for pinholes, and note their locations.

Use the palette knife to remove any remaining ink from the master and return it to its bottle.

On the film side of the master, apply Riso Correction Fluid to the pinholes.

Allow the correction fluid to dry completely.

In the case soiling of the print across a wide area, affix adhesive tape to the corresponding area of the master.

Ink can react in a variety of different ways depending on the type of cloth to which you apply it. Whenever possible, try making at least one test print on the same (or similar) type of cloth you plan to use for your final print.

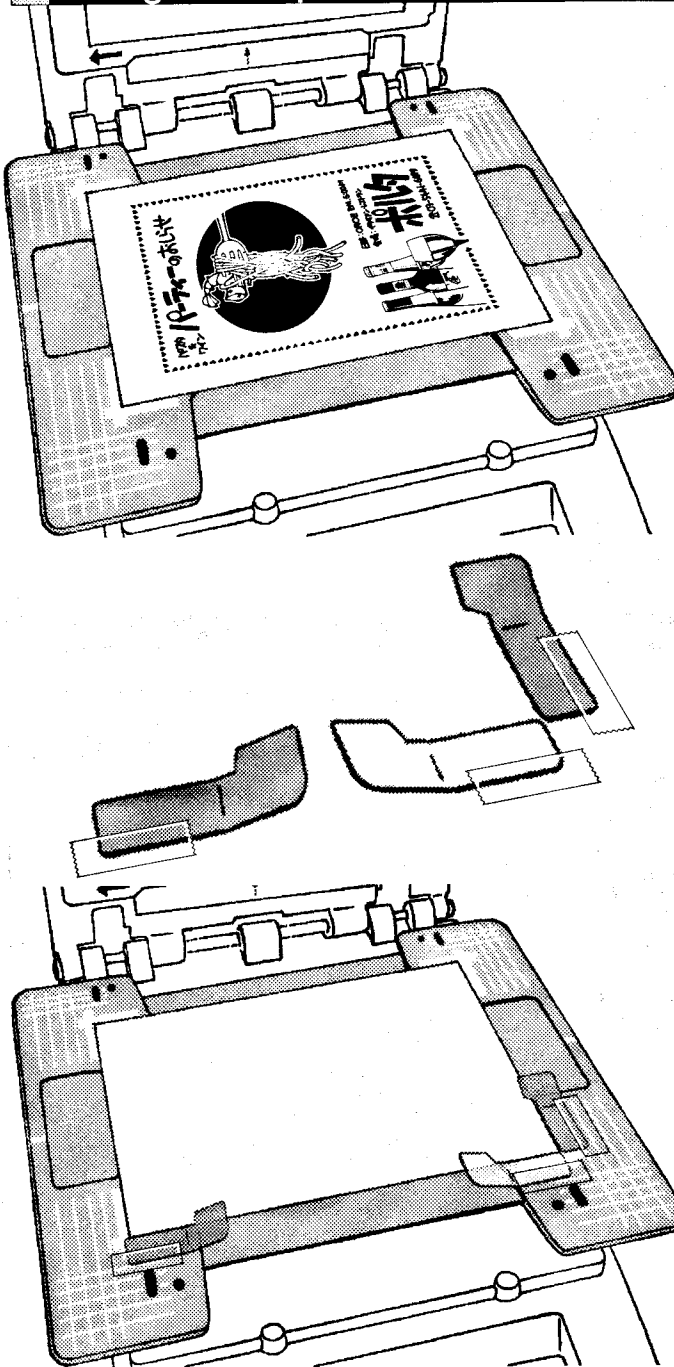
You can mix standard ink colors to create your own colors. You can also create gradation effects by skillful mixing and application of ink.

Never mix Riso HiMesh Ink (for paper) with Screen Ink (for cloth).

Fixing the Paper Position

The Paper Guides help to ensure that the paper on which you are printing is in the correct position at all times. Use the Paper Guides when printing on non-standard paper sizes that cannot be aligned using the standard guide marks, to position paper for overprinting, and when using the Separator for consecutive prints.

Using the Paper Guides

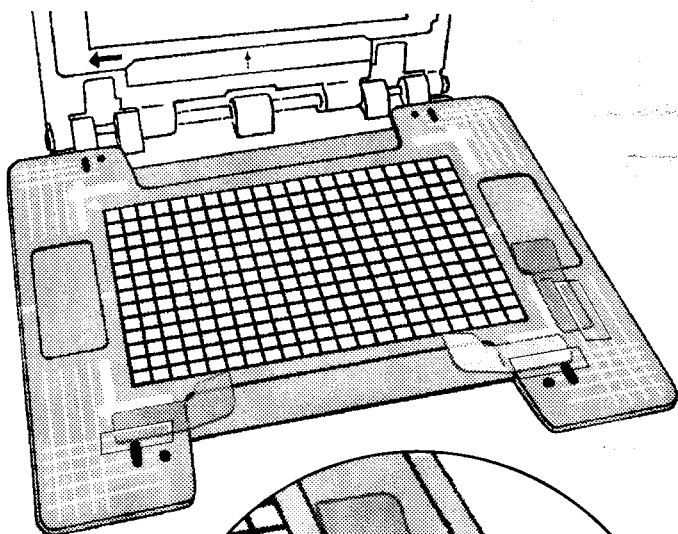


1. Perform the procedures in "Basic Printing Steps" starting from page 12 to prepare the original, make a master, apply the ink, etc.

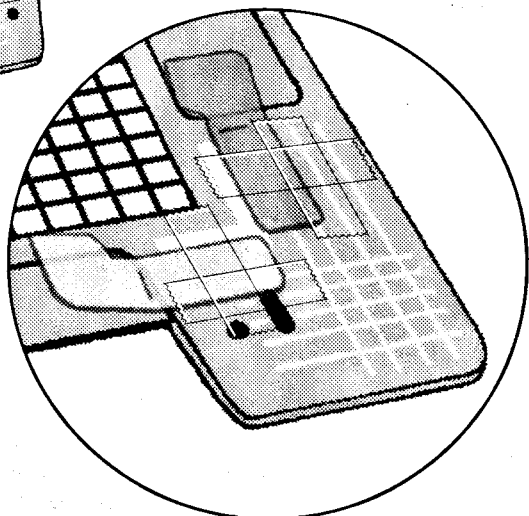
2. Perform a test print to ensure that all text and graphic elements are positioned correctly on the page.

3. Attach adhesive tape to the three paper guides (one red and two black, or two red and one black) as shown in the illustration.

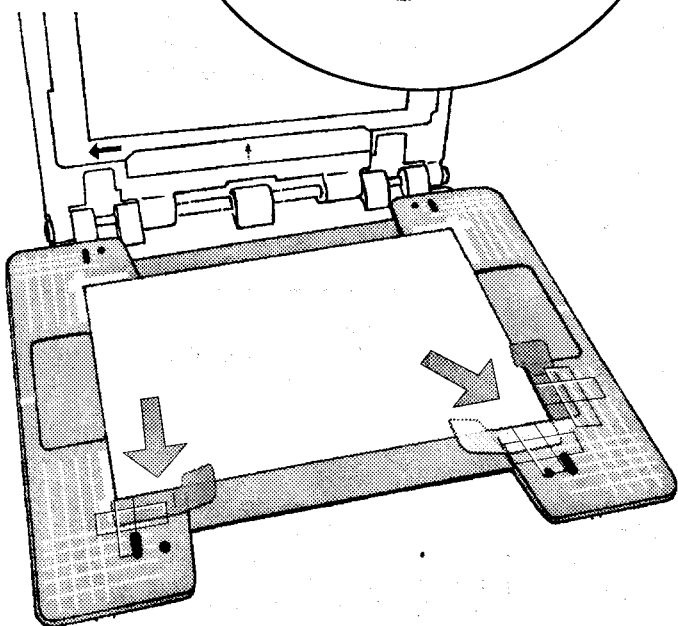
4. Affix the Paper Guides to the Paper Table at the locations shown in the illustration.



5. Remove the paper from the Print Pad.



6. Secure the Paper Guides by adding one more piece of adhesive tape to each as shown in the illustration.



7. Now you can easily place paper onto the pad, using the Paper Guides to ensure that each sheet is positioned correctly. Place the paper so the corner towards the two paper guides slides in as far as it will go.

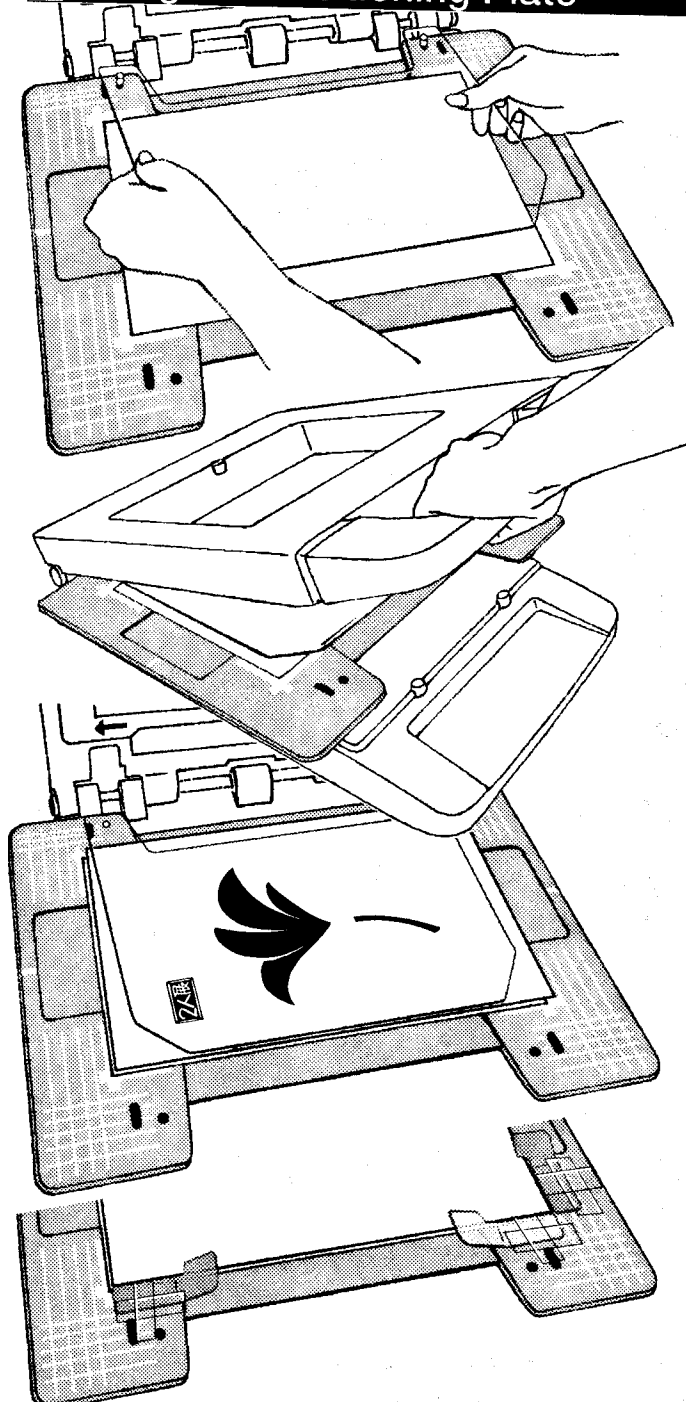
Note

You need to use at least two of the Paper Guides to ensure proper positioning. If the paper you are using is so big that it covers the entire Paper Table, you may not be able to use the Paper Guides.

Checking the Position of Images

The positioning plate lets you check the positioning of printed figures before starting actual printing. You can also use it to adjust the position of figures when overprinting.

Using the Positioning Plate



1. Affix the Positioning Plate so its pins pass through the holes in the Paper Table.

If you are overprinting with multiple masters, you should have printout from another master on the Print Pad at this time. Make sure the ink of the previous printing is dry before affixing the Positioning Plate.

2. Lower the upper panel to print from the master to the Positioning Plate.

3. Slide the paper around under the Positioning Plate until the figures printed on the plate are correctly positioned.

4. When the paper is in the position you want, affix the Paper Guides at the edges of the paper.

Cleaning Ink from the Positioning Plate

Clean off the ink from the Positioning Plate by wiping it with a liberal amount of Gocco Cleaner 15 and a tissue.

If the ink on the Positioning Plate is dry and difficult to remove, apply Gocco Cleaner 15 and wait for a few minutes before wiping it off.

Take care you do not push or pull the positioning plate with too much force when cleaning it. Doing so can damage the pins.

Overprinting

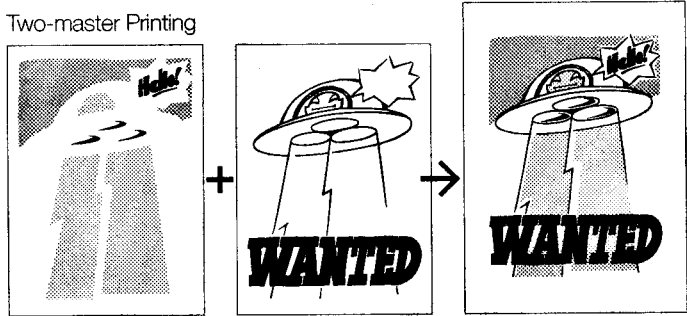
With overprinting, you prepare multiple originals and make a master of each one. Next, you print Master 1, print Master 2 over the printout from Master 1, Print Master 3 over the printout from Masters 1 and 2, etc. The secret to successful overprinting is to make sure that the figures from each master are positioned precisely on the paper.

When applying ink to the masters, take some time to select matching colors for figures that overlap.

Notes For the following types of originals, make a light copy on a copy machine (PPC), and then make the master using a Filter B5 Blue.

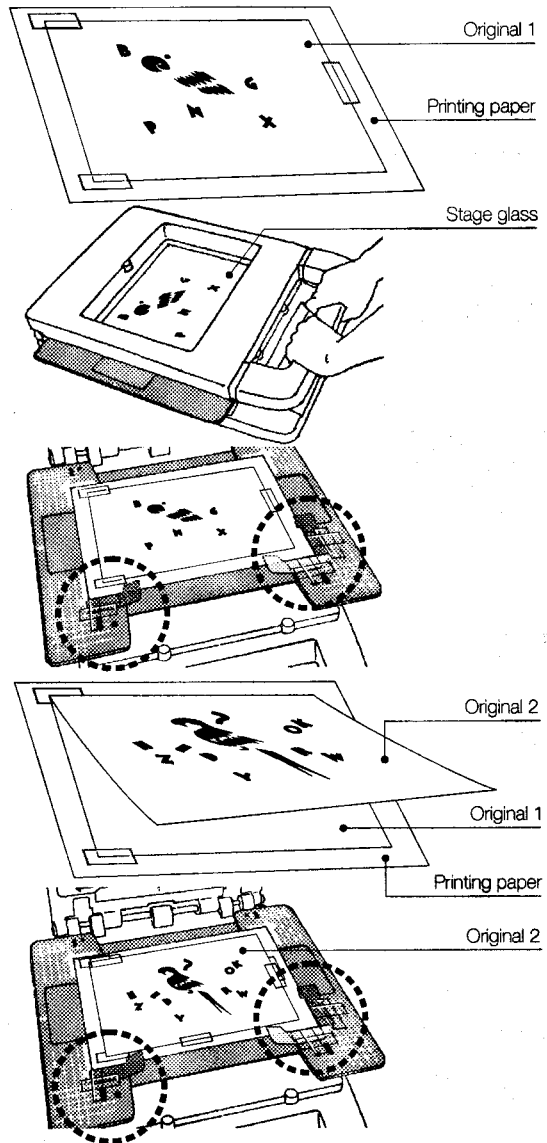
- An original drawn on tracing paper
- An original drawn with a non-carbon based instrument
- An original that has paste on it

Two-master Printing



Master Making and Printing for Overprint Technique

1. Make Original 1 the same size as the printing paper.
2. Place Original 1 onto the print pad, and lower the upper panel. While viewing Original 1 through the Stage Glass, align it in the position you want for your final print.
Make sure that all the parts of the original that you want to include on the master and prints is visible through the Stage Glass.
3. Raise the upper panel, and then affix the three Paper Guides at the appropriate locations at the corners of Original 1.
See "Fixing the Paper Position" on page 27.
Once you affix the Paper Guides in place, leave them there until you are completely finished with the entire overprinting procedure.
4. Use the Paper Guides for proper alignment when making the masters and for final printing with each master.



For Master 2 and beyond, overlay the original onto the original you created in step 1, and use the overlaid originals to make the master. If you have problems aligning the elements contained on different masters, you can check the alignment using the Positioning Plate.

Consecutive Printing

Using the Separator, you can place multiple sheets of paper onto PRINT GOCCO ARTS for speedier printing of consecutive sheets.

This is especially useful when printing handouts, direct mail, advertisements, etc.

ひなまつり
スペシャルサービス
レディース・ケーキバイキング

女性客
限定

〈期間〉
3月1日~
3月10日

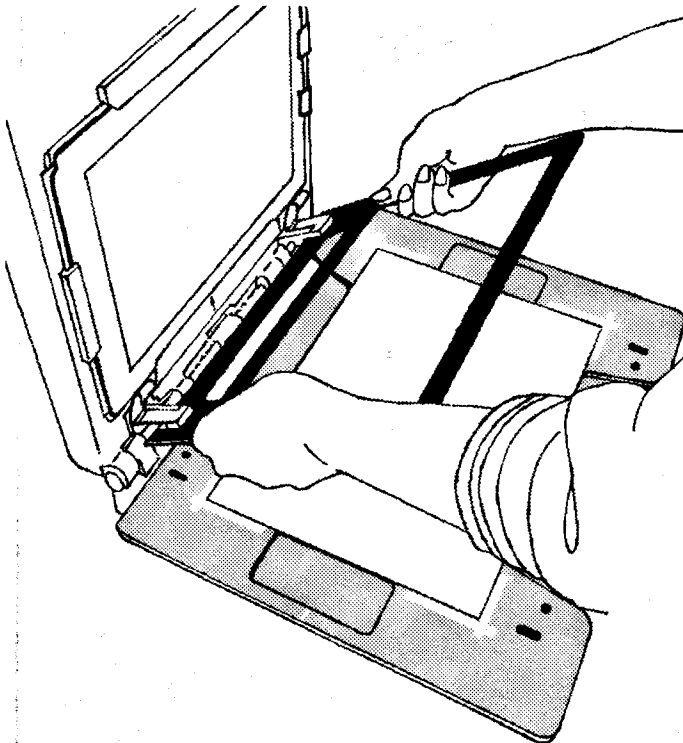
コーヒー、紅茶に、当店自慢の
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Note

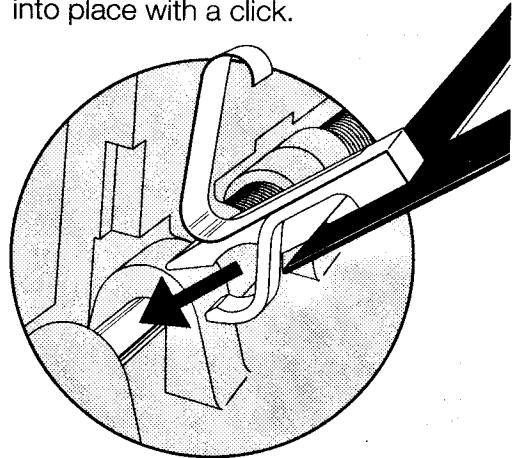
The Separator can be used for printing on paper sizes from A4 (8.3" x 11.7") up to B4 (10.1" x 14.3").

Using the Separator



1. Perform the procedures in "Basic Printing Steps" starting from page 12 to prepare the original, make a master, apply the ink, etc.

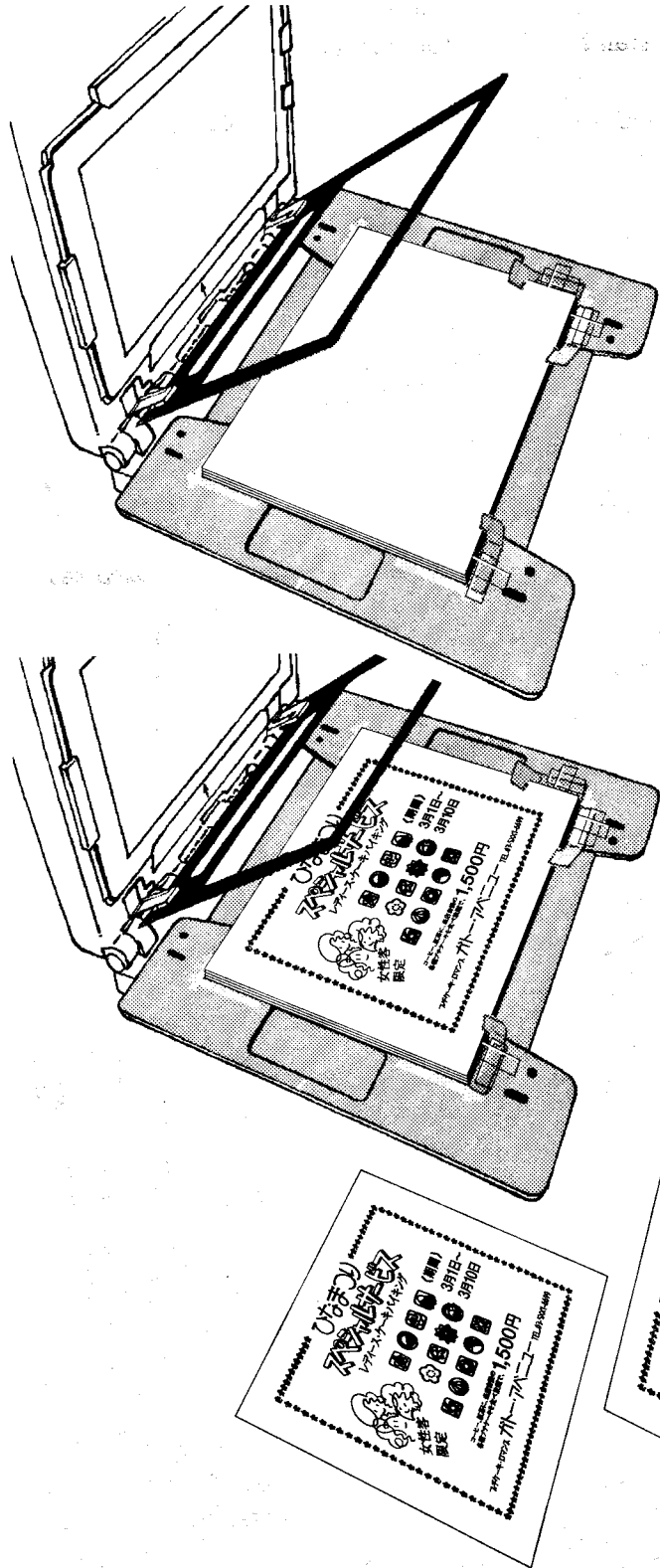
2. Before printing, attach the Separator as shown in the illustration. Orienting the Separator at an angle, push its clamps onto the shaft and press gently but firmly until they lock into place with a click.



3. Place the stack of paper onto the Paper Table, aligning it with the Paper Guides. The maximum thickness of the stack is limited by the height of the Paper Guides, which is about 1.5mm (0.06").

See "Fixing the Proper Paper Position" on page 27.

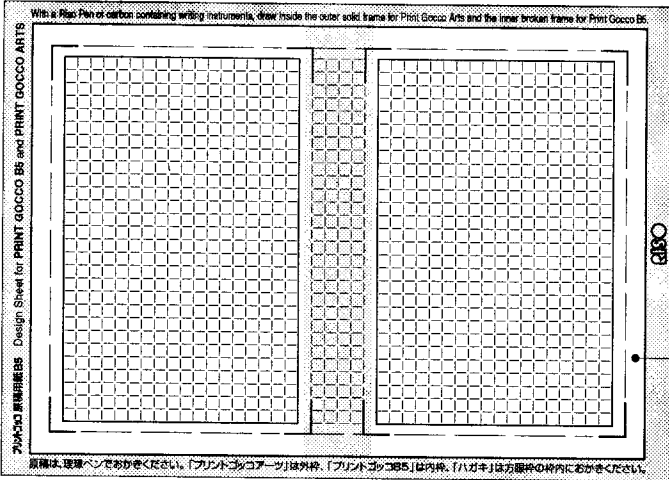
4. Lower the upper panel to print on the top sheet, and then raise the upper panel and remove the top sheet. Repeat this step to print the rest of the sheets.



Printing on Postcards

When printing on postcards, greeting cards, or other small-size paper (smaller than 105mm x 165mm, 4.1" x 6.5"), you can install the Reflector Partition and make the master using only two lamps.

You can also use this technique when creating one page of a larger greeting card.

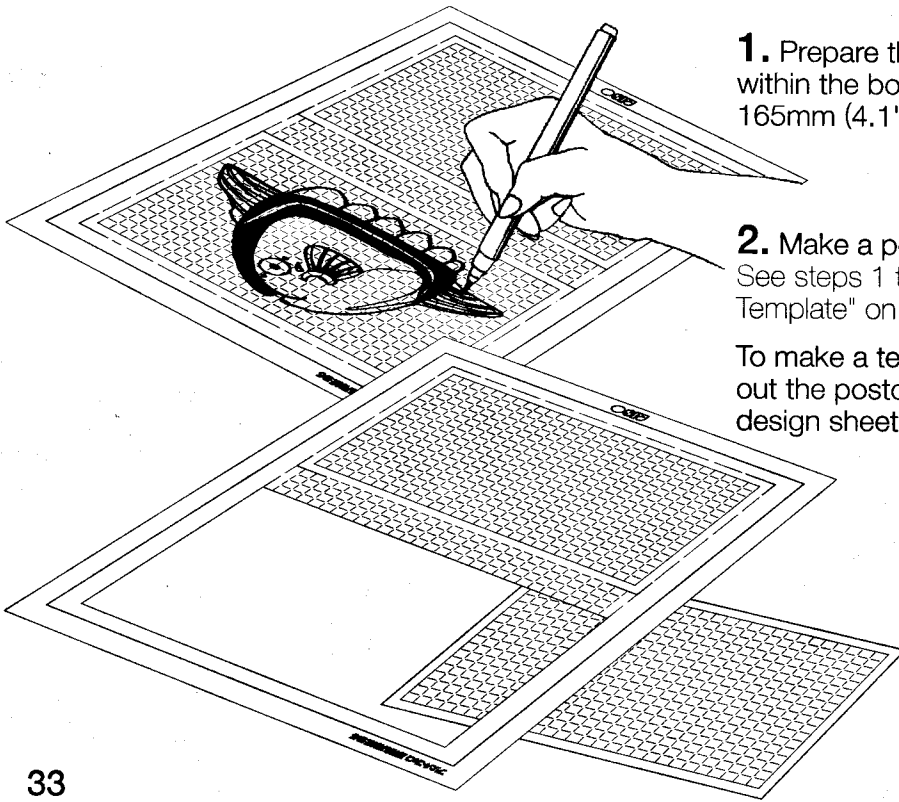


Notes

The size of masters and prints when using only two lamps is limited to the 105mm x 165mm (4.1" x 6.5") areas shown in the illustration.

White areas indicate maximum two-lamp area. 105mm x 165mm, 4.1" x 6.5"

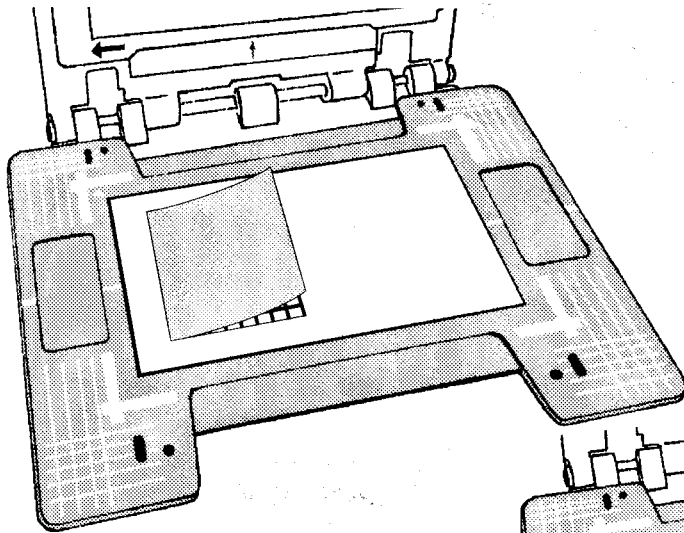
Two-lamp Printing



1. Prepare the original, keeping it within the bounds of the 105mm x 165mm (4.1" x 6.5") postcard frame.

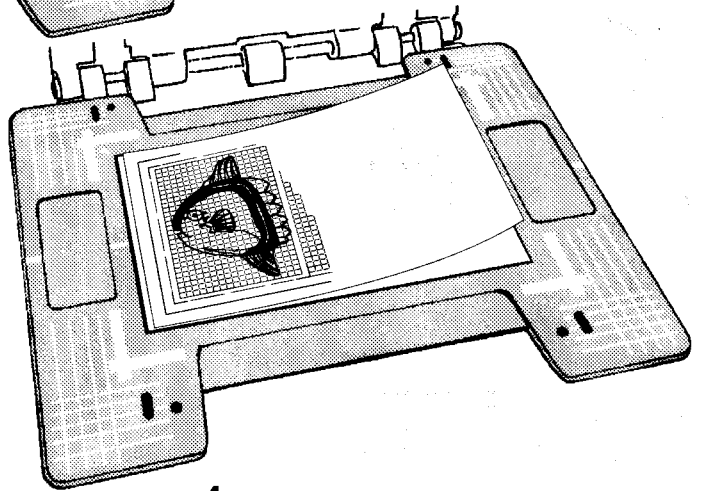
2. Make a postcard size template. See steps 1 through 3 under "Making a Template" on page 36.

To make a template, use a cutter to cut out the postcard size area of a new design sheet.



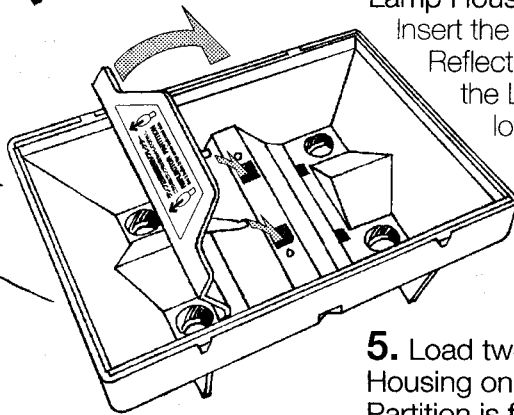
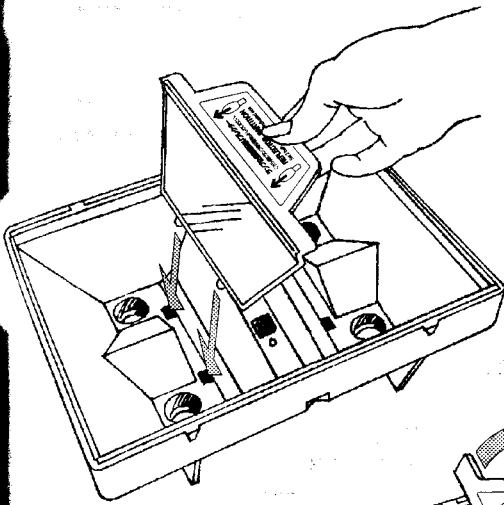
3. Remove the Original Underlay from the Print Pad and replace it with the postcard template you made in step 2. Note that you should place the template on the pad, along with the cutout portion inserted in place.

See "Basic Printing Steps" starting from page 12 for details on how to prepare the original and make the master.



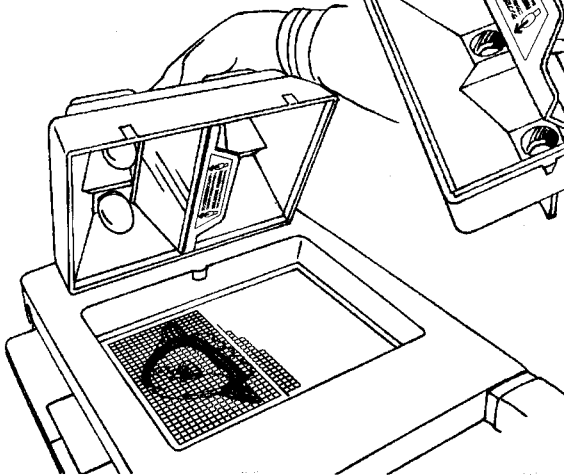
4. Install the Reflector Partition into the Lamp Housing.

Insert the tabs on the edge of the Reflector Partition into the holes in the Lamp Housing, and then lower the partition into place so the arms enter the holes in the center divider of the Lamp Housing.

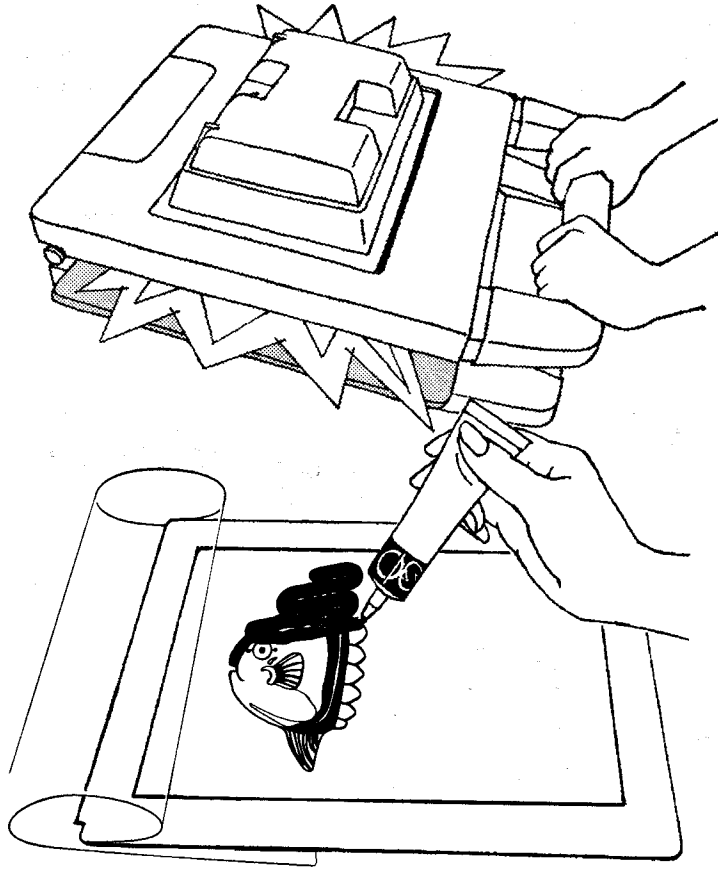


5. Load two lamps into the Lamp Housing on the side that the Reflector Partition is facing, and set the Lamp Housing in place.

Make sure the two lamps are on the side of the Lamp Housing where they will be above the original when you lower the upper panel.

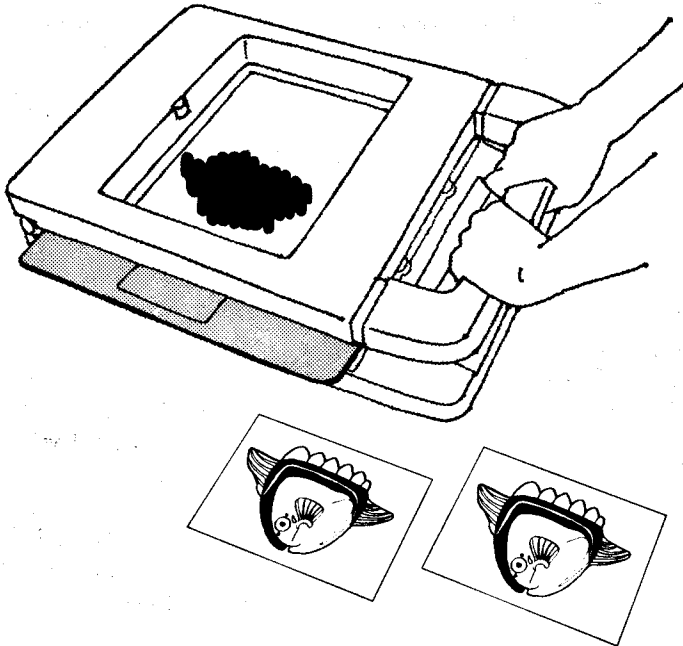


Printing on Postcards



6. Fire the lamps.

7. Apply ink to the master, and set the master in place on the upper panel.



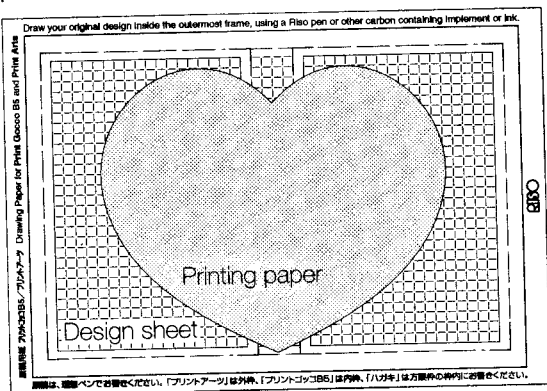
8. Remove the cutout portion from the template. Next, place postcards within the frame of the template and print one by one.

Making a Template

A template makes it possible to print of paper sizes that are smaller than B5.

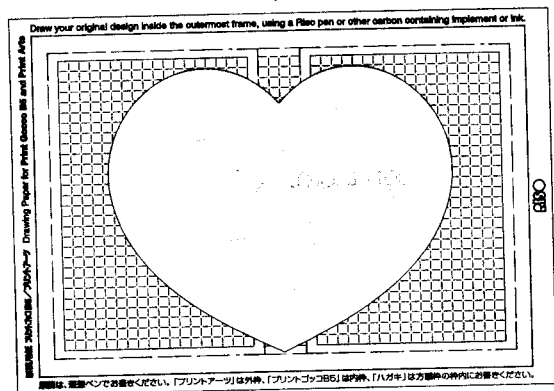
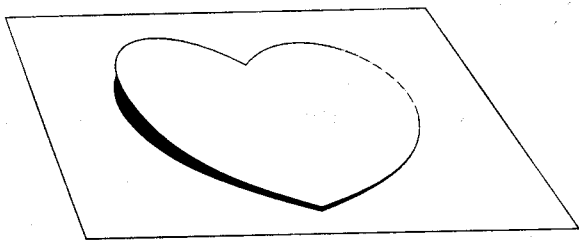
In addition to securing the original and printing paper in place, the template also keeps the master from adhering to the Print Pad.

1. Place the printing paper onto a design sheet. Orient the paper so it is the position you want it when printing.

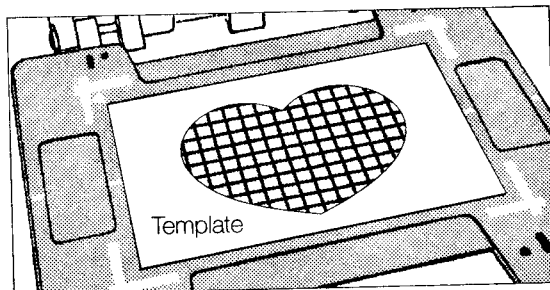


2. Use a red pencil to draw a line around the outline onto the design sheet around the printing paper.

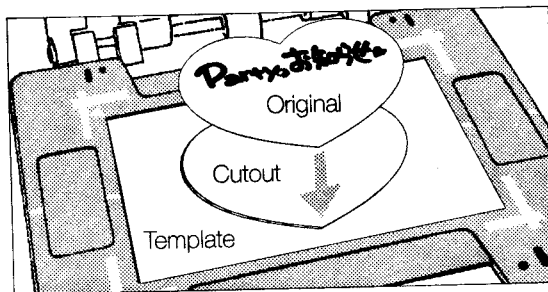
3. Use a cutter to cut out the area of the design sheet outlined by the red pencil.



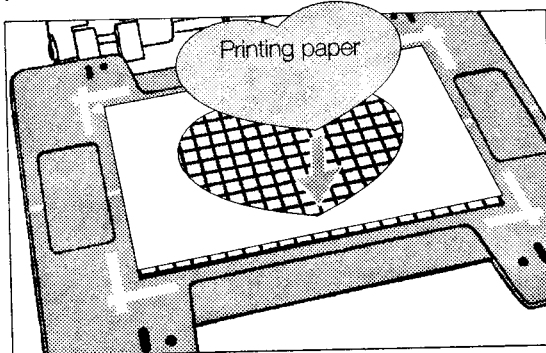
4. Remove the Original Underlay from the Print Pad and replace it with the template.



5. When making a master, place the cutout portion of the template into the cutout and lay the original on the cutout. See "Basic Printing Steps" starting from page 12 for details on how to prepare the original and make the master. Be sure to leave the template on the Print Pad while you make the master and perform the actual print operation.



6. Remove the cutout portion of the template and perform the print operation, placing print paper into the cutout.



Cleaning and Storage

Printer Unit

- Remove batteries from the printer. Batteries left in the printer can leak and cause damage.
- Place a sheet of paper on the Print Pad. The pad has an adhesive surface, which can become stuck to the Stage Glass. Be sure to use paper to cover the pad. Plastic or cellophane food wrap may adhere to the pad too strongly and become difficult to remove.
- When the printer is soiled with HiMesh Ink, use Gocco Cleaner 15 to clean it. To wipe off the Screen Ink, use a damp rag.
- Store the printer in its original package. Avoid storage in areas exposed to direct sunlight and high humidity, and never place heavy objects on the printer. Any of the above can cause deterioration of the Print Pad.

Master, Ink, and Framing Kit

- Keep the master in a plastic bag to avoid dust and damage.
- Do not leave the master and ink under direct sun light nor in hot and humid place to avoid deterioration.
- Make sure to replace the cap on the tube / bottle of ink when you finish using it.
- Keep the Printing Frame and Frame Pinchers in their original package to avoid deformation.
- To keep Frame Pinchers in their original shapes, remove them from the Printing Frame after use.

Lamp, Master, Ink, and Other Disposables

- The method you should use to dispose of used lamps, masters, ink, and other refuse depends on the local regulations on your area. Be sure to dispose of all refuse in accordance with local regulations.



Having Problems?

Check the following points whenever you start to experience problems with your printing.

Cannot attach the Lamp Housing.

Is there a master in place on the upper panel?

The Lamp Housing will not attach properly if there is no master in place on the upper panel. Slide a master into place on the upper panel before attaching the Lamp Housing. See "Making a Master" starting from page 15.

Is the Lamp Housing oriented correctly?

Make sure the ▼ Mark on the Lamp Housing is aligned with the salient on the printer.

Lamps do not fire.

Are the + and - ends of the batteries facing in the right directions?

Open the battery cover and check to make sure that the batteries are loaded correctly. See "Getting Ready" on page 11.

Are batteries dead?

If lamps do not fire while batteries are loaded correctly, it may mean that batteries are dead. Replace the current batteries with a full set of fresh ones. See "Battery Replacement" on page 10.

Are you pressing hard enough on the handle?

Lamps will not fire if you do not apply sufficient pressure to the handle. Press down strongly on the handle with both hands until the lamps fire.

Is the Lamp Housing attached correctly?

Lamps will not fire if there is not electrical contact between the Lamp Housing and printer. Remove the Lamp Housing and then replace it, making sure it fits securely and correctly. See "Making a Master" starting from page 15.

Some lamps do not fire.

Are batteries and lamps defective?

Try replacing the batteries with a full set of new ones, and try using a new set of lamps.

Lamps flash, but they have no effect on the master.

Did you use the recommended carbon-based instruments or devices to produce the original?

Remake the master using the recommended carbon-based instruments, or copy your original on a copy machine (PPC) and use the copy for master-making.

When using Chinese ink or India ink, dilute to a ratio of 2-to-1. Apply it to fine paper and allow it to dry thoroughly.

When using a pencil, use B or 2B lead. See "Preparing the Original" starting from page 13.

Are the master and original oriented correctly?

You will not be able to make a master successfully if the master is not set correctly or if the location of the original is wrong. Go over the proper procedure once again and make sure everything is correct. See "Making a Master" starting from page 15.

Is the Filter B5 Blue positioned in front of the master?

The filter should be placed on the master's transparent sheet. See "Making a Master" starting from page 15.

Prints look dirty.

Are you trying to make a master from a copy without using a Filter B5 Blue?

Be sure to always use the Filter B5 Blue when making a master from a copy (printed on a PPC). If printouts are dirty even when you use the filter, make a lighter copy and try again. Note that copies produced on certain copy machines may not be compatible with PRINT GOCCO ARTS.

See "Preparing the Original" starting from page 13.

Is the design sheet or original dirty?

Clean up the original or make a new one, and then make a new master. Use Master Correction Fluid to edit out dots or minor soiling. For minor soiling that covers a wide area, cover the corresponding area on the master with adhesive tape.

Is there dust on the master?

Keep dust from getting onto masters by storing masters in a plastic bag until just before you are ready to use them. Marks caused by dust can be removed with Master Correction Fluid.

Did you draw the document using a pencil?

Lead dust from a soft pencil can cause soiling of the original. Use Master Correction Fluid to remove spots from the master, or commercially available correction fluid to remove spots from the original.

Are the edges of a cutout element ragged?

Lines along cuts made with dusty scissors can appear on masters. Use Master Correction Fluid to remove unwanted lines, or cover the lines on the master with adhesive tape.

Prints are blurred.

Is the original wet?

If the original contains a high level of moisture, vaporizing of the water in the paper can result in a poor quality master. Use a dryer or other means to dry the paper before making a master. See "Preparing the Original" starting from page 13.

Was paste used to layout the original?

Use only adhesive tape when laying out graphic and text elements on the original. Use of paste or double-sided tape will result in a poor quality master. See "Preparing the Original" starting from page 13.

Did you prepare the original correctly?

Try preparing a new original with a pencil, or copy your current original on a copy machine (PPC) and make a new master. See "Preparing the Original" starting from page 13.

Is the original made of the wrong type of paper?

Glossy paper (art paper, coated paper, etc.), tracing paper, or other types of non-porous papers are not suitable for PRINT GOCCO ARTS originals. Prepare a new original using non-glossy fine paper, or copy the current original on a copy machine (PPC). See "Preparing the Original" starting from page 13.

Are lines or text too much impressed on the page?

An original with a rough surface can result in an uneven master. When drawing with a pencil on the original, be sure to place it on a firm surface. If the surface of your original is rough, make a copy on a copy machine (PPC). See "Preparing the Original" starting from page 13.

Is the original too large?

Using an original larger than 235mm x 165mm (9.3" x 6.5") can cause areas around the edges to be omitted from the master. See "Preparing the Original" starting from page 13.

Did you check the position of the original through the Stage Glass when making the master?

Due to limitations on the amount of pressure that can be applied, an area about 5mm (0.2") wide around the entire periphery of the Print Pad does not reproduce well on the master. Be sure to allow for this when creating your original, and check the original through the Stage Glass to confirm the position of the elements on the master. Only the elements visible through the Stage Glass will be included on the master. See "Preparing the Original" starting from page 13.

Did you use enough ink?

Insufficient ink results in poor quality prints. Make sure you use enough ink.

Is the original too light?

Use a Riso Pen to redraw the outlines on the original.

Is there ink or other foreign matter on the Stage Glass?

A dirty Stage Glass can result in poor quality masters. Use Gocco Cleaner 15 to clean off the foreign matter. If the Stage Glass becomes too dirty to clean with Gocco Cleaner 15, replace it with a new one.

Did you use a Filter B5 Blue for a hand drawn original?

The Filter B5 Blue is to be used for the original that is a copy. Do not use this filter in the case of originals drawn with a Riso pen or graphic elements in the Clipart Sample Leaflet, because doing so can result in insufficient light exposure. Try creating a new master again without using the filter.

Is the Original Underlay on the Print Pad when you are making the master?

If you place the original directly onto the Print Pad when making the master, the grid pattern of the pad can imprint on the master. Be sure the Original Underlay is in place on the pad and then place the original on it. See "Making a Master" starting from page 15.

Is it time to replace the Print Pad?

A Print Pad loses its elasticity over time, which can result in poor quality masters. The service life of a pad varies with the conditions under which it is used, but we recommend that you replace the pad once every five years.

Is the Positioning Plate on the Print Pad while you are making the master?

Be sure to remove the Positioning Plate whenever making a master.

Is ink clogged on the master? (for Cloth)

Ink left on the master when making multiple prints can dry and cause clogging. Use a damp rag to wipe the area of the master where the print image is located to unclog the ink. See "Printing (On Cloth) on page 25.

Printing paper sticks to the master when printing.

Is the Print Pad losing its adhesion?

Wipe the pad with a damp cloth, or remove dust from the pad by dabbing it with the adhesive tape. This should restore the adhesion of the pad.

Prints are curled.

Is the adhesion of the Print Pad too strong?

The adhesion of a new Print Pad may be too strong, which can cause printed paper to curl. Place a small piece of thin paper in the center of the pad to reduce its adhesion.

Cannot remove the original from the master.

Is the copy density too dark?

A copy that is too dark contains a large volume of carbon, which can cause burning of the master. For dark copied originals, use the Filter B5 Blue and make another master. See "Preparing the Original" starting from page 13.

Separator does not attach correctly.

Is the Separator upside down?

Install the Separator with the side marked "This side up." facing up.

Was the Separator installed at the correct angle?

Make sure the Separator is at an angle of 20 to 30 degrees when you attach it to the shaft.

Lost or misplaced Original Underlay.

Should the Original Underlay ever become lost or damaged, cut a design sheet to B5 size (185mm x 257mm, 7.3" x 10.1") and use it in place of the Original Underlay.