RISO Screen Printing Kit

Produced by NEHOC Australia Pty Ltd

Complete and return your Warranty for FREE LIFETIME support and information

RETURN YOUR WARRANTY FOR FREE LIFETIME SUPPORT and FREE* PRINTING SUPPLIES

You will receive FREE registration to the GOCCOclub when you complete and return your Warranty Form. The GOCCOclub is a FREE news and information service for RISO customers, providing product, application, training information and support for customers throughout the world.

>> MEMBER ONLY TRAINING VIDEOS
Only GOCCOclub Members get access to extra online videos, including the latest releases.

>> PRIORITY PRINTING REQUEST FORMS
Got a print job or task you would like to attempt but don't know where to start?? Complete a GOCCOclub Priority Printing Request form on the web site and let us do the hard work for you.
 - If you don't have Internet access then simply phone +61 (02) 9979 9700 and ask our helpful staff for assistance.

>> GOCCOclub NEWS
A newsletter packed full of new information, updates and great GOCCO ideas.
The newsletter is available in both electronic format [recommended] on the Internet or it can be mailed to you - see the Warranty Form for Details.

>> FREE CARD PACK and OTHER MEMBER ONLY OFFERS
Receive a FREE Card/ Paper Printing pack valued over $52, plus there are new product special offers, training packs, discounted items and much, much more.
* Delivery cost applies

How to Register the Warranty

Return your warranty by post:
The GOCCOclub
PO Box 175
NARRABEEN   NSW   2101, Australia

Register your Warranty using the CD-ROM:
Open the NEHOC Training CD-ROM on your computer and use the Warranty Registration link.
You will need Internet access as this takes you to the NEHOC web site and the correct form.

Register your Warranty on the Internet:
http://www.nehoc.com.au/GOCCOclub/warranty   (NB: address is cAsE sensitive)

Warranty Registration will ensure any problem is immediately handled without further inconvenience or delay. If we don't have your warranty registered then you will miss out on FREE information and product updates, plus any claim may be delayed.

NEHOC Internet Support

NEHOC offer the largest and most comprehensive English language web site on the Internet [Voted #1 by Suite101.com], dedicated to supporting and advancing RISO printing systems.

There is a comprehensive TRAINING section for your support, as well as online training videos - log on today and begin to unleash the potential of your system.

w w w . n e h o c . c o m . a u

Setting Up Your Machine Ready For Use

1. Remove the machine and contents from the box.
⇒ Complete and submit your Warranty Form immediately

2. Open the lid of the machine remove the plastic protector cover on the Pad Table by peeling off from a single corner - Discard once removed

3. Remove the Stage Glass protector card [white with orange border]

4. Cut out the border to create a post card size piece of card

5. Place the cut card onto the now sticky Pad Table
⇒ This stops any grid marks showing when screens are made and stops the lid from sticking to the Pad when it is lowered

5. Open the Battery Cover in the Lid and insert the two batteries as marked [positive points to left.]
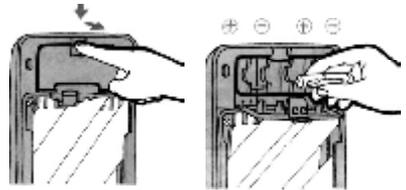
Your machine is now ready for use.

Part Names

Battery Lock

Battery Cover

Stage Glass

Imaging Pegs

Lid - Imaging Holes

Master Holder

Master Guides

Master Holder + Master Safety Lever

Pad Table
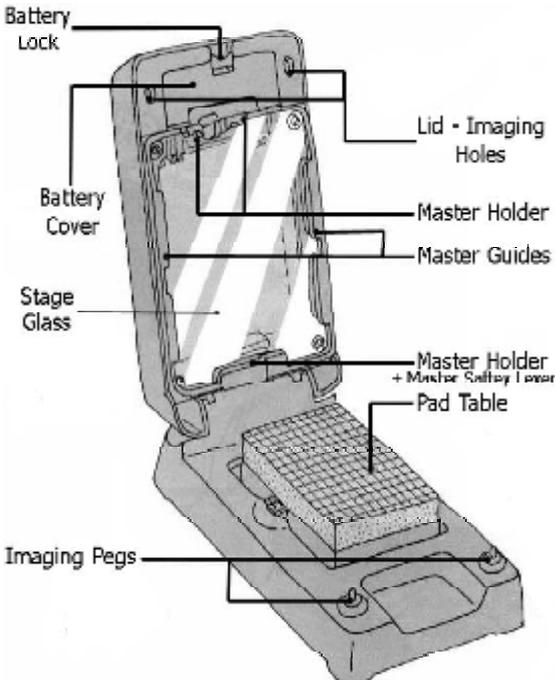
Lamp Housing

Print Lamps are inserted into the Lamp Housing and 'flashed' to transfer the design onto the Print Master.

Reflector

Imaging contacts

Print Lamp sockets
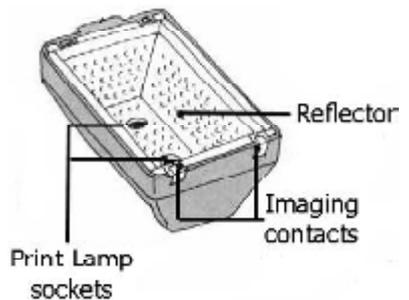
IMPORTANT: After 'flashing' Print Lamps will be hot. Do not handle until Print Lamps have cooled.

TIP: After imaging, place your Lamp Housing aside - FACE UP - so heat can escape from the cooling Print Lamps.

Do you really know how RISO images a screen?
Videos of this process are available on the NEHOC Training CD-ROM and the NEHOC web site - www.nehoc.com.au

How RISO Really Works

The RISO system operates using a thermal process to transfer a carbon based designs onto either RISO ScreenMaster Screen Printing mesh or a PRINT GOCCO Print Masters.

The Imaging Process

As the Print Lamps fire, the heat passes through the screen and hits the artwork, heating up the carbon to melt away the emulsion [thermal film], transferring your design onto the ScreenMaster. When the ink is squeegeed through the screen [which is attached to a frame prior to printing], the ink will pass through the exposed area of the screen – your design – and onto the item below.
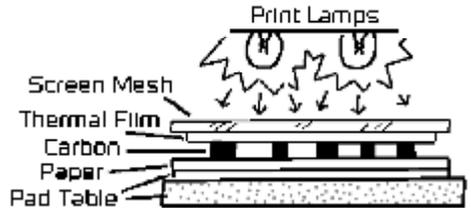
Good artwork is vital to avoid problems before they occur!!

FACT: The #1 printing problem is caused by moisture caught in the artwork BEFORE imaging the screen.
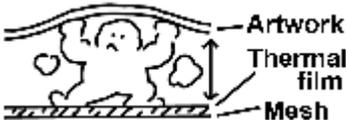
Problems are especially noticeable on solid/ bold areas and include patchy printing or middle of letters and lines not printing. These problems **ARE** avoidable, and are caused by carbon blocking the screen and is easily avoided by preparing your artwork using the Artwork Clean-Up Procedure, outlined in **Section 2-7**.

Artwork Types You Can Use

Artwork is the key to a good print - A small amount of time preparing your artwork will provide you with a perfect print result and ensure you avoid time consuming printing problems.

As previously explained the RISO system operates on a thermal process using **carbon based artwork**, this being available from 4 main types -
1. **A Photocopy**
2. **Computer Laser Print [not Bubble Jet – ink is not carbon]**
3. **Hand drawn artwork with RISO carbon artwork pen**
4. **A RISO or NEHOC designs book - printed with carbon ink**

Important: Your final design must be the same media. You can NOT mix a photocopy with hand drawn artwork, as the carbon levels will vary. If your design is a mixture of different types, simply make a photocopy and use the photocopy as your original artwork.

Keys to Good Artwork

#1 Use the same type of artwork [i.e. don't mix photocopy and laser print]
#2 Eliminate all the moisture in your artwork
#3 Remove excess carbon deposits that may block the screen
The Artwork Clean-Up procedure, outlined in **Section 2-7**, is generally the best artwork preparation technique for photocopies, laser prints & hand drawn designs.

Using A Photocopy As Artwork

With a photocopy you can keep your original design for later use and can use almost any design to create a screen. Poor quality photocopies [background lines/ spotting/ etc.] will provide a poor result, use a photocopier that is regularly maintained and provides a clear copy.

1. Photocopy your design on the lightest setting available before the copy begins to break up or fade - even the lightest copy has more than the required carbon to make a screen

⇒ For best results ensure paper is dry/ no moisture is present

⇒ Use the photocopy as soon as possible after removal from the machine [no moisture should be present in the paper].

⇒ Bold designs use the Artwork Clean-Up Procedure detailed in **Section 2-7**

2. You must use the Blue Filter when imaging a screen [unless using the Artwork Clean-Up Procedure - see **Section 2-7**], as the B6 Blue Filter decreases the amount of heat coming through from the Print Lamps

3. Image your design as detailed in **Section 3-1**

Note: Photocopies MUST be used instantly or moisture will return to the copy. If you can not use instantly – perform the Artwork Clean-Up Procedure before imaging the design.

Artwork With RISO Carbon Pens

For the artistic PRINT GOCCO enthusiast, producing original artwork that may be imaged directly onto the Print Master [after drying] – ideal for Calligraphy.

1. Draw your design with RISO Carbon Artwork Pens

2. Prepare your design before imaging by drying with a hair drier to eliminate the moisture from the ink & paper

3. Image your design as detailed in **Section 3-1**

Computer Laser Prints

The best form of artwork, clear and detailed, however laser prints have an extremely high level of carbon, often too much for the RISO screens, blocking the screen with carbon if not prepared correctly.

We highly recommend using the Artwork Clean-Up Procedure [detailed in Section 2-7] to eliminate the excess carbon.

1. Generate your artwork within the computer & print to the laser printer

2. Perform the Artwork Clean-Up Procedure to level the carbon deposits and eliminate moisture

3. Image your design as detailed in **Section 3-1**

RISO and NEHOC Artwork Books

Printed Design Books are ideal for logos, pictures, graphics, text, colour separated artwork & 'full colour' artwork. To be used directly from the book, the artwork must be printed with carbon ink. Most artwork books you find in the shops are NOT carbon ink. Only use artwork books for use with the RISO system i.e. S-160 and S-307.

NB: Artwork & project sheets issued from NEHOC will indicate if printed with carbon ink

1. Cut the design out of the Artwork Book

2. If stored in a moisture effected area, dry with a hair drier to ensure a good result

3. Image your design as detailed in **Section 3-1**

Carbon printed artwork has the lowest carbon levels of all 4 types of artwork, hence no levelling of carbon or blue filter required.

Artwork Clean-Up Procedure

For this procedure you will require an iron set to permanent press - STEAM OFF, Artwork Clean-Up Paper [S-155] and a work bench which is heat resistant.

1. Set up your PRINT GOCCO ready for imaging before you begin

2. Tear off a piece of clean up paper sufficient to cover the design area

3. Place the artwork face up on top of several sheets of paper or a surface that will not be affected by heat

4. Lay the clean up paper on top of the artwork

5. Place the DRY iron over the paper moving the iron from one side to the other, taking no more than 2 seconds to pass over the design

6. Repeat this process a further 3 times [4 passes in total] before lifting artwork and slowly peeling off the clean up paper

<u>Note</u>: Do not heat for longer than 3 seconds per pas as this will overheat the carbon

7. On a NEW FRESH piece of clean-up paper repeat steps 5 and 6

8. On a third piece repeat steps 5 and 6. By this stage there should be a clear carbon image transferred onto the clean up paper. This is normal, if this is not occurring see 'points to note' below

9. On a fourth and final piece repeat steps 5 and 6. After this your artwork will be warm and paper noticeably crisp - YOU ARE READY TO IMAGE THE DESIGN.

Points to note for Artwork Clean Up Procedure

⇒ If the paper is beginning to stick to the design or lift the carbon, shorten the time of the pass - the paper is being fused to the carbon due to excessive heat.

⇒ If the Clean-Up Paper begins to burn/ brown or have similar symptom as above, decrease the setting of the iron

⇒ If by the third piece there is no imprint left on the paper then increase the time spent moving across the design

⇒ If by the third piece there is no imprint on the clean up paper then you must increase the temperature on the iron

Video of this procedure is available on the NEHOC Training CD-ROM and on the Internet - www.nehoc.com.au in the TRAINING section.

Using a Photograph or Dot Screen with Artwork

Photographs must be photocopied against a RISO Dot Screen [S-138] to transfer photographs into artwork. Use a good clear photograph – black and white where possible. Solid designs should use a White Dot Screen overlay to reduce the carbon density and eliminate carbon blockages.

1. Place the Dot Screen face down on the stage glass of the photocopier

⇒ NOTE: Many photocopiers have the Dot Screen function built in and do not require a separate screen to be laid onto the glass - in this case just lay artwork onto the glass

**2.** Place the photograph/ artwork face down over the Dot Screen

3. Lower the lid of the copier and lighten the setting before making a copy

⇒ The best setting is the lightest possible setting before any drop out or fading of the design

4. The copy that is produced should be used immediately to make a Print Master

Copyright 2004 NEHOC Screen Printing Operation Manual for S-868 Kit
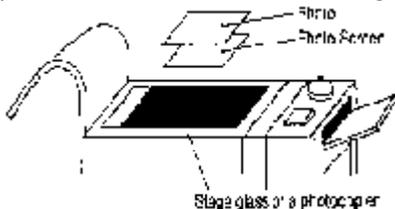
Imaging Your Design Onto The Screen

The quality of your print will be directly related to the quality of your Artwork. If you have not already done so, PLEASE prepare your artwork using the Artwork Clean-Up process!

How to Make a Screen Printing Screen

1. Cut a piece of RISO ScreenMaster to the size of the frame [allow room on each side to cover the double sided tape]

2. Place a piece of card over the pad table
⇒ This will stop the Pad Table adhering to your artwork once imaged and eliminate any line markings caused by the pad grid

4. Lay your artwork onto the Pad Table – face upwards [pic. right]

5. Place the screen mesh over the artwork – Film [smooth] side against your artwork [pic left.]
⇒ Ensure your design is centred on the screen
⇒ If using a Blue Filter with photocopied artwork, lay on top of the screen now, or insert into the Stage Glass Master Holders in the Lid

6. Insert Print Lamps into the Lamp Housing

7. Important - You **MUST** disarm the Lamp Housing Safety Switch - at the bottom of the Stage Glass so the Lamp Housing can be inserted and enabling the machine to flash.
⇒ Using the Ink Knife, scissors, or similar item push the switch down while inserting the back of the Lamp Housing into the machine
⇒ You can permanently disarm this switch by jamming with 'blue tack' or similar

8. Insert the Lamp Housing into the machine

9. Lower the Lid of the machine and place the palms of your hand onto the front corners and press down to 'flash' the machine, imaging the design to the screen

10. Hold for 2 seconds, until you can hear the Print Lamps have stopped 'cracking'

11. Remove the Lamp Housing

CAUTION Print Lamps will be hot

⇒ Place Lamp Housing with Print Lamps facing upwards, letting heat escape after imaging

12. Lift the lid of the machine and remove your imaged screen - ready for mounting to a frame

Instructions for Imaging Larger Designs
A4, A3+ next page ☞

Imaging Larger Screens

Artwork larger than 140mm x 90mm will require two [or more] flashes to create the finished screen. The screen is processed in stages, with the unique nature of the RISO systems ensures that when the first section of the screen is imaged, the artwork is lightly stuck to the back of the mesh - eliminating any movement/ blurring of the print - ensuring the design remains perfectly registered!

NOTE: When imaging very large screens you may be required to roll the edges of the screen so it does not cover the Imaging Pegs or Holes, nor make contact with the hinge. The raised Pad Table is designed to allow space for this process.

1. You must start your screen from one end/ edge and work your way across the screen
⇒ DO NOT image one end, the other end and then the middle

2. Place your artwork onto the Pad Table, lay your ScreenMaster mesh over the artwork [film side down] and image the design as outlined previously in **Section 3-1**
⇒ This will image the first part of the screen and your artwork will lightly stick to the mesh.

3. Move the screen through the machine, overlapping the already imaged area by about 5mm inside the Stage Glass area
⇒ Once you have imaged the top of your design, it will adhere to the screen and not move for subsequent imaging
⇒ To check the overlap you can lift the screen off the artwork and see where the two are attached
⇒ You will also see through the Stage Glass a light & dark area on the screen - the dark area is the imaged area.
⇒ Flashing part of the design [the overlapped area] twice will not adversely affect the screen as the film has already been processed

4. With your screen moved through the machine ready for the next section, insert new Print Lamps into the Lamp Housing and perform the imaging process again as details in **Section 3-1**

5. If your design is larger still, simply move the screen through the machine, overlapping the already imaged area and repeat the process until the design area has been covered

Important: You do not have to image areas of the screen which do not contain a design - only image the design area. A small design on a larger screen may only need one flash, provided the design fits into the Stage Glass area.

Mounting Your Imaged Screen To A Frame
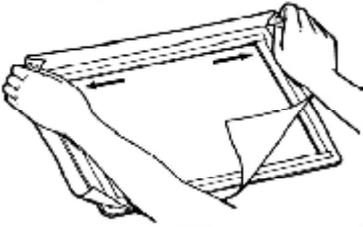
1. Lay your frame on a flat surface, tape side up and remove the backing of the double sided tape
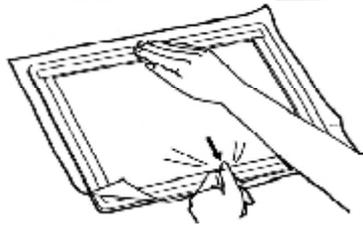
2. Lay the rough side of the RISO ScreenMaster down onto the frame, fastening it lightly along one edge

3. Pull the screen across the frame, fastening to the other side

4. Stretch the edges of the screen onto the side of the frame
⇒ Do not stretch with strong pressure, as produced by a gauze stretcher etc., as this will distort or break the screen
⇒ Attach screen securely so that there are no wrinkles or slackness. If a local wrinkle is generated, lift that portion and reattach the screen to the frame again
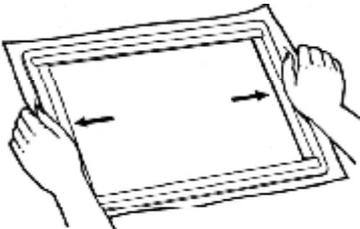
5. When screen is fastened to the frame, without wrinkles, trim the edge of the screen to the side of the frame
⇒ You may also tape the edge of the screen to the frame if performing a medium to long print run – this will help ensure the screen does not move
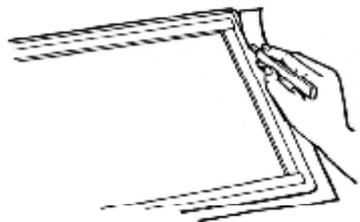
Creating your own frames

  NEHOC supply a range of common size frames, however if you require a custom size for a larger/ longer item, you can easily make your own.
  ⇒ You can use wood or aluminium fly screen surrounds, available from your local hardware store, to create a custom size.
  ⇒ Ensure the corners are tightly secured and place double sided tape [N-190] to the frame before use.

How To Screen Print With RISO

Video of this procedure is available on the NEHOC Training CD and also in Information Sheet #25 on the NEHOC web site.

RISO equipment and techniques have changed the two basic elements of screen printing from that many people were taught in school - for the better!

1. Keep the angle of the squeegee upright at approx. 60-70 degrees - this will let the sharp edge do the printing.
⇒ This provides a clear, sharp print - angles too low force too much ink through the screen and bleeding may occur
2. Do not use excessive pressure when printing
⇒ The blade on the squeegee should NOT flex or bend whilst printing
⇒ You don't need much downward pressure - the ink will naturally be drawn through the screen onto the material below - you just need to guide the squeegee with even pressure

Basic Screen printing Technique

The best way to lean is by printing about 20 times in an old phone book!

1. Once your screen is made, place the screen over some paper ready for a test print
2. Dip an ink knife [wooden or plastic] into the ink and laden the squeegee blade with the ink ready to commence printing, as pictured right.
⇒ Laden by placing the ink knife against the blade and holding the squeegee still, pull the ink knife downwards - the blade of the squeegee will 'scrape' the ink off the ink knife
⇒ If you wish you can also put the ink directly onto the screen
3. Place sufficient ink onto the blade with an ink knife – about double your normal toothpaste amount [6 to 7mm thick]
4. Lower the squeegee angle to transfer the ink onto the screen and then bring the angle back up ready to print
5. Pull the squeegee across the screen at an angle of approx. 70 degrees
6. Raise the squeegee angle up to 90 degrees to 'pick up' the ink and remove from the screen
7. Place the squeegee on some scrap paper and lift your frame in a hinge motion to reveal your print
⇒ A hinge motion is used to avoid smudging/ blurring the print [hold the frame on one side]
⇒ If the print is too light you can lower the frame and print again

Points to note

⇒ Your squeegee should move freely across the screen with even pressure & ink coverage
⇒ Once you commence printing you will quickly determine the correct level of pressure and squeegee angle that suits - the prints will tell you what you are doing wrong
⇒ Prints too dark, blurred, smudged or not a clear image = pressure too great and squeegee angle too low
⇒ Prints too light, not a clear image = pressure too light, squeegee angle too high or not enough ink on the squeegee

Finally, you must heat set your design to make it permanent

Heat setting eliminates the moisture and sets the pigments to the item.
General T-shirt & fabric setting is ironing @ 180ºC for 30 seconds [no steam].
⇒ Cotton/polyester t-shirts may require lower heat for longer time period.

Not all inks require heat setting - please read ink instructions and set as required.

Testing your Screen

When you have finished making the screen, you should always perform a test print
⇒ Print onto white paper [or black if using white ink] as this will show up any spotting/ unwanted marks

What are we looking for in a test print?
Pinholes. These are tiny spots/ marks that are caused by specks of carbon not visible to the eye when making a screen.

Look carefully at the test print to locate any pinholes that may have occurred. If pin holes have occurred do the following <u>BEFORE</u> performing a second print.
⇒ Leave non-imaged screen areas coated with ink residue from your first print - the ink will naturally dry in the tiny holes blocking them
⇒ Allow screen to stand for about 40-45 seconds, slightly less if very fine lines are involved - you don't want the ink to dry in the screen [or you have to wash it up]
⇒ Generally spots and blemishes will disappear, but this process MUST be performed on the very first print

Perform a second test print and compare this against the first.
⇒ If pinholes are still present then you may need to perform one of the following screen corrections detailed below

Making Corrections

1. Return all excess ink from the screen and squeegee to the ink pot

2. Leaving a 2 cm. wide border around the outside of the design, cover the outside area of the screen with Screen Masking Tape [T36]. Attach the tape to the back of the screen - film side of the ScreenMaster.
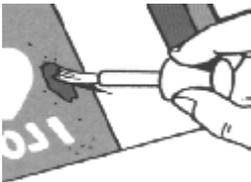
3. Hold the screen up to the light [this will reveal pinholes, as pictured right]
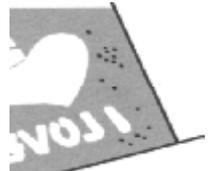
4. Repair pinholes by covering them with RISO Correction Fluid [S-767] and allow Correction Fluid to dry
⇒ Apply Correction Fluid to the film side of the screen

5. Try the test print one more time to ensure the pin holes were blocked.

IMPORTANT

DO NOT place Correction Fluid over design area or the screen will block and your design will NOT print, as illustrated right.
If you don't have a steady hand, place your screen face down and steady with your other hand when applying the Correction Fluid, or, improve artwork quality to avoid pinholes [see Artwork Clean-Up].
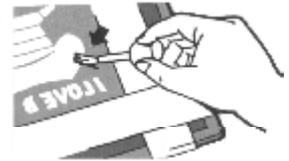
Colour Separations

To make a multi-colour print you need to make a screen for each colour. For this you must colour separate your artwork by either hand or computer.

Details for colour separations are available on the Internet [IS13], the NEHOC Training CD-ROM or from the GOCCOclub.

Original Design

By Hand - Tracing method

1. Place a sheet of thin paper over the original picture.
⇒ Draw the outlines of the areas to be coloured with a yellow pencil.
⇒ Shade in the areas to be coloured with a carbon based pen
⇒ Fill with 'texta' if it is to be photocopied

1st Screen **2nd Screen**

2. Image and frame each screen

3. Test print each colour

4. Start printing with the lightest colour
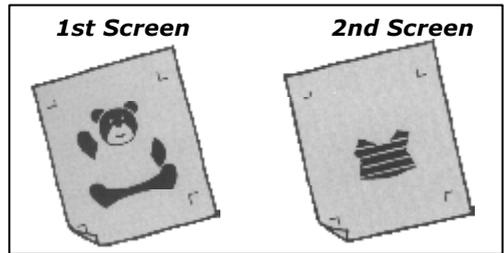
By Hand - Blocking Method

1. Place your original design onto the stage glass of the photocopier and make as many copies as you need layers [plus 1 or 2 spares].
⇒ Each photocopy becomes it's own separation/ layer
⇒ Name each layer [on the top or back] so you know what to remove from each separation

2. You must now block out using correction fluid [or cut with a sharp knife] the areas on each separation that are not required. Repeat the process for each photocopy/ separation.

When you have finished all your separations, take a new photocopy of the design and use this as your artwork when imaging your screen [remember the blue filter for photocopies].

Using a Computer

Computers are the best method of colour separating as they enable you to move, re-size and manipulate your design quickly and accurately.

See Information Sheet #13 in the TRAINING section of the NEHOC web site for full details of this process, of view details from the 'How to . .' on the NEHOC Training CD-ROM.

Registering Multiple Colours/Separations

A screen printing jig is normally used for registering multiple screens either:

⇒ Printing all colours at once, overlaying the 'wet' colours

⇒ Printing one colour at a time, removing the item from the jig between colours [not normally suitable for t-shirts]

Having done all the hard work with your colour separations, it is important to line up succeeding screens precisely, each and every time - a jig with multiple arms will do this for you.
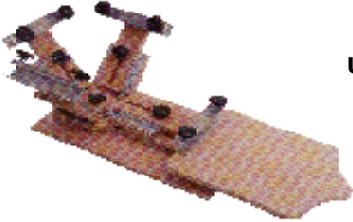
Using a screen printing jig:

Video demonstrations of screen printing jigs are on the NEHOC Training CD-ROM. View these for details on jig use and single/ multiple colour registrations.

Making a simple one/ two colour jig on a table

This process will not work with every item, but by understanding the process you'll be able to make your own make shift jig as required.

⇒ Lay the item [t-shirt] down and place some pen/ registration marks around the item to get a rough outlay of the item

⇒ Place a copy of your original design onto the item and put it in the desired position

⇒ Lay one of the screens over the design and register

⇒ Tape the edge of the screen to the table [forming a hinge] - lift this over and tape the inside for extra strength

⇒ Repeat this hinge process with other screens/ colours - putting a screen on each side of the item [you can have a maximum of 4 colours]

If you are not using a jig:

Some people develop their own simple form of registration depending upon the equipment they have available, here's a few simple guides to help you get started:

⇒ Place a copy of your original design over your item, in the correct printing position. This becomes your 'home' position and you will line up each of the screens over this design.

⇒ Since RISO Screen Master is transparent, you can visually line up a second screen with the finished print of the first screen.

Printing Dark Fabrics

When printing on dark coloured fabric you need to use an Opaque Ink with a thicker pigmentation/ density. [Opaque inks are also called Hy-Cover or Supercover Inks].

⇒ Standard colours will not show up as well as expected and have a transparent look

Hint #1

As the ink is thicker, you should elevate your screen 2-3mm above the fabric or the ink will not travel through the screen well, sticking in the design producing a patchy print.

⇒ If using plastic frames, place 3 frames under [2 if using A5 size] your screen - this will raise it to the required height

Hint #2

For a bright print and good ink coverage, print the design twice in the one go. This involves printing the design, lifting the screen [in a hinge action so as not to move the registration], lowering the screen and printing over the top of the print again.

⇒ If the ink is too thick you can reduce with 2-3 drops of water
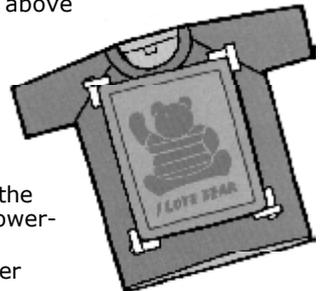
Printing Plastics, Metals, Glass, etc.

Plastic, metals & glass are not absorbent surfaces, therefore any ink placed onto the surface remains on top of the item until it dries and bonds to the item. Unlike screen printing fabrics, the screen can not be laid directly on top of the item or smudging will occur when printing. For this reason your screen MUST be elevated above the item to be printed so as the screen does not rest on the item.

This elevated style of printing is called **'Off Contact' Printing**

Understanding Materials

It is important to note not all plastic and metal surfaces are the same, with different compositions and constructions, greatly affecting the ability of the ink to adhere to the item.

⇒ Recycled plastics are best avoided as although they are often cheaper to purchase, they require a much stronger, and toxic, form of ink to adhere to the plastic.

⇒ Use ABS plastic where possible

⇒ Use materials that are untreated/ coated [i.e. leather]

RISO Equipment Required

Additional equipment is required for this type of printing:

Screens - A finer grade of RISO ScreenMaster should be used where possible [135Mesh], **however ScreenMaster 135Mesh can NOT be imaged successfully with Print Lamps**.

Þ The RISO Screen Printing Kit is best combined with B6 and B5 Print Masters attached to plastic frames for printing [pic. right] - details of this process are on the Internet in the TRAINING section [IS32] or the NEHOC Training CD
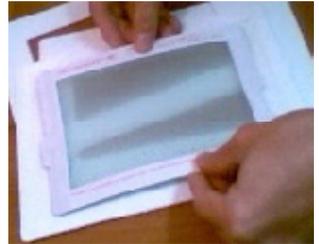
Ink - Suitable ink is required for plastics/ metals such as the specially formulated RISO Aqua Ink. Use only water based inks where possible, however solvent based inks can be used, but the screens can not be cleaned and kept.

Jig - Set up a jig or use a set of the NEHOC Jig Hinges [S-360H] for both registration of the print and importantly raising the height.

Frames & Squeegee - Remain the same as for fabric printing

How To Print 'Off Contact'

There is a limitation on the size of your design as the screen must travel down to meet the item so you can not print to the edges of the screen. A general rule is to have your design one third the size of your screen i.e.: Using B6 Print Masters - Design size 35 x 52mm, S-9100 Small Plastic Frame - Design size 40 x 60mm, S-9101 Large Plastic Frame - Design size 60 x 80mm, S-9102 Small Metal Frame - Design size 55 x 83mm, S-9103 Large Plastic Frame - Design size 83 x 136mm

How to get the correct height

The goal is to elevate the screen above the item to a point just before the edges of the design can not be pressed down onto the item without stretching the screen.

1. Place the screen into your jig, above the item to be printed
2. Raise the screen [approx. 3mm] so as all the screen is now elevated above your item, using spacers placed under the frame
3. Press down on your screen so as the design area comes in contact with the item
4. Increase the height slightly and check the design area can still come in contact with your item below
5. When the edges are too high and can not come in contact with the item below, the screen is too high and must be lowered slightly. This is the maximum height available.
6. You may use a slightly lower height, provided your design does not blur whilst printing. This can only be determined when performing your initial test prints.

Replacement Items

S-105 PRINT LAMPS

Print Lamps eliminate the need for chemicals and U.V. exposure, they are the essential element required for imaging screens.
Contents: Pack/10

RISO ScreenMaster 70Mesh - for fabrics

ScreenMaster is available in a wide variety of widths and lengths to suite all printing applications. Check out the Product Catalogue or web site for a complete listing.
⇒ The RISO Screen Printing Kit is supplied with a 30cm[W] x 1M roll
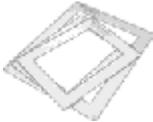
FRAME MOUNTS

Available in A5 Small Plastic [S-9100] & A4 Large Plastic [S-9101] PLUS A4 Metal Frame [S-9102] and A3 Metal Frame [S-9103].
Contents: Each

FABRIC SCREEN PRINTING INK

The RISO Screen Printing Kit is supplied with fabric screen printing ink - you can use ANY water based fabric screen printing ink. A wide range of colours is available, all intermixable, see the catalogue or your supplier.
⇒ The RISO Screen Printing Kit is supplied with Standard fabric inks

S-155 ARTWORK CLEAN-UP PAPER

Essential for the creation of perfect artwork. See **Section 2-7** for details.
Contents: Roll/33M

Accessories

The complete range of products is available in the NEHOC Product Catalogue [on the NEHOC Training CD-ROM] or visit the web site and view the products on-line – **www.nehoc.com.au**

N-190 DOUBLE SIDED TAPE

Keep your costs low by reusing all your frames again and again - simply replace the double sided tape as required. *Contents: Roll/ 50M*

S-525 RISO SCREEN REPAIR KIT

The RISO Screen Repair Kit contains a full 33Metre roll of Artwork Clean Up Paper, a bottle of RISO Correction Fluid [20ml] to touch up any pinholes or mistakes on your screen, a 75Metre roll of Screen Masking Tape to block large areas of the screen, the all new convenient size 165ml Table Adhesive to keep your items still whilst printing, plus Correction Instructions.
Contents: Kit

SCREEN PRINTING JIGS

Accurate registration of multiple colours with professional quality. Using a jig you will print 10-15 times faster than manual registrations.

There are 2 fantastic jigs available, suitable for almost every applications, in Single Arm [code: SPJ-SK] and 4 Arm/ Multi-colour [code: SPJ-4SK]

Video on how to use a jig is available on the NEHOC Training CD, plus details are available on the NEHOC web site.
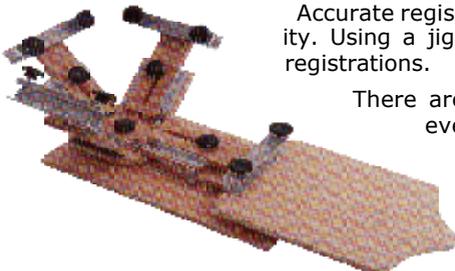
Additional Printing Applications

Ceramics

By adding suitable ceramic inks your RISO Screen Printing Kit can be used for printing many different ceramic items - both flat [tiles] and curved [bowls, plates, cups] using transfer printing.
⇒ Greenware & Bisqueware - KERA Underglaze Inks
⇒ Glazed items - KERA Onglaze Inks
⇒ Decals - KERA Onglaze Inks

See the **CERAMICS** section of the NEHOC web site for full details

Paper/ Card Printing

Did you know your RISO Screen Printing Kit was originally designed for printing paper/card?
The printing process is different to Screen Printing and uses different types of screens [called Print Masters] and inks. Details are available on the NEHOC web site and also on the NEHOC Training CD-ROM.

All you need to do is add a few item to your kit and you can begin printing instantly:
⇒ PRINT GOCCO B6 HM Print Masters [code: S-489]
⇒ PRINT GOCCO HM Paper Ink

Did you know you can receive a Card Printign pack FREE when you register your warranty online?

There is also an advanced card/ printing system called PRINT GOCCO PG-11, which has inbuilt registration features for Fine Art and Process Colour [CMYK] printing.
Samples of PRINT GOCCO prints are in the ART GALLERY on the NEHOC web site.

Printing Plastics, CD's & Metal

The standard RISO Screen Printing kit is designed for printing fabrics, however when you use suitable supplies the machine can be used to image Print masters for plastic printing applications i.e. CD's, ABS plastics, metals & aluminium.

Details of this process are listed on Page 14 of this manual, the Training CD-ROM & Information Sheets #32 in the TRAINING section of the NEHOC web site.

Special items required for Plastic Printing:
⇒ Finer grade mesh [Print Masters] & Aqua inks for plastics
Special techinques required:
⇒ 'Off contact' printing is required

Spare Parts for RISO Screen Printing Kit

If required a wide variety of parts are available, contact your supplier for further information of visit www.nehoc.com.au to view the available parts.
⇒ RISO Screen Printing Kit uses PG-5 model spare parts

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