# Picture transfer with stencil-paper and thermocopier



Please follow your local jurisdiction when doing transfers onto the skin!

function of a thermocopier making an original copying process trouble shooting examples

#### How does a thermocopier work?

A thermal-copier is used in order to make a copy of an original by melting coloured wax. During this process the coloured wax on the coated basematerial is transferred on a sheet of paper. A very powerful lamp producing thermal radiation in the device, melts the wax above the dark areas on the original and transfers it onto the above lying sheet of paper.

In any case a white sheet of paper is the ideal background-paper.



For a proper transport of all the sheets and films through the thermocopier make sure that they lie on top of each other in the correct order, before putting them into a "carrier".

This carrier is very important for a proper transport in the device. Besides this, the carrier protects the glass-cylinder and the rubber roller from damage and wax-residues.

Please renew the carrier, when it has run out of shape or got dirty.

Your supplier provides all suitable spare parts!

Ask your supplier about the High-Resolution-Carriers! Available in different sizes for both 8,5 x 11 and 8,5 x 14 Inches.

The pictures on the following pages shall help you to achieve good results and to use the stencil-papers as economically as possible. At the end of this manual you find a collection of a few examples in case you need some help in trouble shooting.

#### Making an original

For a thermal copy the original must have some appropriate specifications. Unfortunately, not every original is a suitable one.

Our experiences have shown that the main reason for most mistakes that are made is an inappropriate original.

The decisive point, if an original is suitable or not, is the **carbon content** of the black colour. The carbon content, however, can not be estimated with bare eyes, so some experience is necessary.

Suitable methods of making an original:

- b/w copy by a normal photocopier or from a copy-shop
- b/w print by a laser printer

it can be said generally that matte coated originals are more suitable than originals with glossy looking black colour.

 some sorts of pencils or calligraphic pens
 Because of the large number of those products please try out yourself. Many other printing methods are unsuitable because such black coloured originals are often inappropriate for thermal copying. The problem again is the missing carbon content.

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Some examples:

- b/w print by a standard CMYKcartridge inkjet printer
- felt-tip, biro or coloured pencil
- Stamping ink
- letterpress

But in any case you can make a copy of any original with a carbon toner (b/w copy by a normal photocopier or from a copy-shop).

In order to make an original in your desired size just use the **zoom function of the photocopier**.



## **Copying process**

You need the following items to make a transferable copy:

- Suitable original print / design
- Spirit Master stencil-paper
- Carrier in suitable size

The "Spirit Master" itself is a complete unit, consisting of a yellow carrier paper, a wax-coated film, a brown separation-sheet, and a white cover sheet.



Now put the complete unit (i.e. the original is in the Spirit Master) into the carrier, the white cover sheet has to be on top! For best results please put the satin- finished side of the carrier on top (not the glossy one)!
<ul> <li>Choose a medium setting at the speed control.</li> <li>115 V thermocopier: approx. setting 7,5</li> <li>230 V thermocopier: approx. setting 7.5</li> <li>Please note: <ul> <li>low speed = strong heating = strong melting of the wax = dark copy.</li> <li>higher speed = low heating = less melting of the wax = pale copy.</li> </ul> </li> </ul>
After the copying process take the carrier out of the device. Now pull off the white cover sheet of the Spirit Master carefully. The copy can be seen on the backside. Any rests of the Spirit Master (e.g. areas around the figure) can be stored for any later handmade figures.
Now the copy can be transferred onto the desired position of the skin. Several transfer-liquids can be used, please ask your supplier about a suitable product.

## Trouble shooting

While making several copies within a short period ot time, the results are getting darker!	It is difficult to make up any general rule but experience shows that it is necessary to choose a by approx. 0.5 higher speed control setting after each copy. Example: 1st exposure: setting 7.5 2 <sup>nd</sup> exposure: setting 8.0 3 <sup>rd</sup> exposure: setting 8.5 and so on
The transport rollers in the device get dirty or covered with wax!	Always use the thermocopier with a suitable carrier! This carrier has to be always larger than the Spirit Master in order to protect the device from dirt and wax which is hard to remove.
When you use a non-original carrier you do not get any proper copies or the transport machinery of the device does not work correctly!	In any case the heat resistance of the material is important. But this does not necessarily mean that a better heat resistance is a reason for better copies. Some materials (e.g. the blue "3M- Carrier") are totally inappropriate because of their poor heat resistance. It can happen that such a material wraps around the transport rollers and even damages them. Use only original carriers provided by your supplier! Damages caused by inappropriate carriers are not covered by warranty!

After the copying process the carrier went out of shape in some areas, or some parts of the original were transferred onto the carrier!	Blackened areas on the original <b>must</b> <b>not</b> touch the carrier because heat arises here also. As a consequence an unprotected carrier can be "burnt" or damaged. In such a case you have to either cut the original in a proper shape or cover those areas with a white piece of paper.
The results of the thermocopier are very different!	Please note: If it is possible, change only one parameter during your trials. It is worth doing so because reliable adjustments and the proper quality of the original make it easy for you to achieve good results later!
Different methods of making an original cause different copies!	When you use an original made by a laser printer of another manufacturer, the results can be already that different that you have to choose a much higher or lower speed control setting. Thus, it is better to use always the very same photocopier or printer for making an original.
After a copying process, the fans and the transport machinery are still working, although the illumination lamp has already turned off!	After several copies in a row please allow a normal cooling down period of about 15 – 20 minutes. During this time do not turn off the main switch of the thermocopier. The fans cool down the device (transport rollers included) to avoid a dangerous build-up of heat.

### Examples

#### Multiple copies:



While making several copies shortly one after another the speed control setting was increased by 0.5 after each copy. In the row shown here the left copy was the first one. The speed control setting increase was able to equalize the rising temperature of the device.



#### **Different carriers:**



copy with a non-standard carrier



copy with original carrier

Wrong exposure:



underexposure choose a lower speed control setting (e.g.  $7.5 \rightarrow 6.5$ )



**OVEREXPOSURE** choose a higher speed control setting (e.g.  $7.5 \rightarrow 8.5$ )

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