

TIM™

Thermal copier

User manual



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For all technical problems, please contact your local dealer first:



Table of contents:

Declaration of Conformity	4
Important notes	6
Safety instructions	7
The correct installation site	9
Commissioning	10
Working with TIM	11
Copy process	12
Maintenance/Repair	13
Troubleshooting	14 - 15
Warranty	16
Technical data	17
Functionality	18
Copy process	19 - 21
Template creation	22
What to do if	23 - 24

Declaration of Conformity:

The design, manufacture and delivery of the thermal copier comply with the safety directives of the following EU regulations:

- DIN EN 62368-1: Safety of Information Technology Equipment
- DIN EN 55014-1/2: Electromagnetic compatibility Requirements for household appliances, electric tools and similar apparatus
- DIN EN 50106: Information Technology Equipment Routine electrical safety testing in production
- All PCB's used in the thermal copier meet the RoHS – standard

This device is only suitable for intended use in studios or offices with the usual environment and temperature there.

Children should NOT operate the device!

Important note for users in the UK:

The connection cable of this device is equipped with a plug with an integrated 10A fuse. It is important to use this cable to connect to the power outlet. If this plug does not fit, the cable must be replaced with an appropriate one with a matching plug. Make sure that a 10A plug is used. If a plug without a fuse is used, the cable and the associated fuse in the electrical distribution board must be suitable for a continuous current of 10A.

Dear Customer,

we congratulate you on the purchase of our thermal copier TIM. TIM produces high quality copies and is virtually maintenance free. The high quality of the copies and the low maintenance operation make TIM the best choice among thermal copiers.

This manual provides you with safety, setup, operation and maintenance information. Please take the time to read this manual. This will help you get the best possible copies and avoid problems and hazards to yourself and/or damage to the equipment.

The following symbol indicates an important safety instruction!

Disregarding it can lead to injuries to persons or damage to the device.!



Important notes:

Before commissioning TIM, please make sure that the operating voltage indicated on the type plate on the rear side corresponds to the local mains voltage. If not, please contact your local dealer.

- Place the thermal copier on a stable, flat and heat-resistant surface. There must be enough space (min. 10cm - 4 inches) around the device to ensure sufficient cooling.
- Heat is generated during the copying process! Especially if you make several copies in succession, some parts inside the device become very hot! Do not touch any parts (e.g. the glass tube) underneath the cover as long as the fans are running.



- If the thermal copier is no longer required after use, it must be switched off again after the end of the cooling process (see page 36)! For complete mains disconnection when not in use, please remove the mains plug.



- Never operate TIM without carrier.



Safety instructions

Your thermal copier has been designed and tested to meet strict safety criteria. Observing the following information will ensure continued safe use of your device.

Electrical safety

- Please use only the supplied power cord.
- Only connect the device to a socket with a protective earth connection. If you are unsure, consult an electrician.



Make sure that the operating voltage indicated on the type plate on the rear panel corresponds to your local mains voltage. The power outlet must be sufficiently fused (see technical data).

When using an extension cord, make sure that it is approved for the corresponding current. If you will be absent for a longer period of time, please disconnect the device completely from the mains. However, this must not be done during the cooling process. (as long as the fans are running)

Warning:

At the end of the copying process, please do not leave the machine until the lamp has actually turned off.



If this is not the case, disconnect the power plug immediately. Do not operate the device again under any circumstances and send it to your specialist dealer for repair.

Warning

- Avoid the risk of electric shock by using sockets/cables with protective earth.
- Electrical devices can be dangerous if used incorrectly.
- Avoid tripping hazards caused by the connection cable.
- Do not place anything on the connection cable.
- Do not block the ventilation openings. These are necessary to prevent the device from overheating.
- Make sure that no objects fall into the device, e.g. paper scraps or staples.

Warning

Do not insert any metallic objects into slots or openings of the device. Contact with live components can cause fires or even electric shocks.

If you notice unusual noises during operation:



- 1.) switch off TIM immediately.
- 2.) unplug the power cord from the wall outlet.
- 3.) contact your dealer to solve the problem.

Warning



- **The housing may only be opened by authorized qualified personnel. Before opening, the device must be switched off and disconnected from the mains!**

The correct installation site

Maximum ambient temperature: 25°C / 77°F

Do not expose the thermal copier to direct sunlight. Direct sunlight may damage TIM.

Do not place TIM near a radiator or air conditioner.

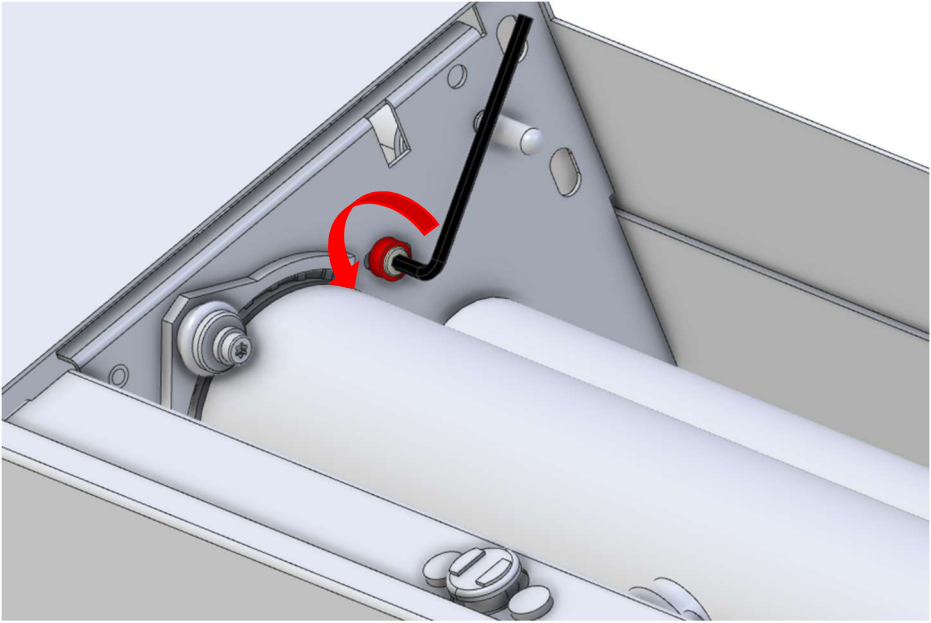
Avoid humid or very dusty places.

Place TIM on a stable, level and heat-resistant surface.

Uneven surfaces can result in mechanical problems and difficulties with template transport.

There must be sufficient space (min 10cm -4 inches) around TIM to ensure adequate cooling.

Commissioning



- 1.) Press the push button to open the maintenance hatch.
- 2.) Use the supplied Allen key to loosen the two screws marked in red. A half turn is sufficient. (do not unscrew completely).
- 3.) Keep the complete packing material such as the cardboard box, foam parts, Allen key for possible transport for maintenance.
- 4.) Now connect Tim with the supplied connection cable to a suitable socket. Observe the "Safety instructions !

Working with TIM

Switch on

Turn on the main switch on the left side of the rear panel. The green led on the front lights up. TIM is now ready for its first copy.

Feed control

- 1.) If you don't have any experience yet, start with a medium setting (see test exposure) and look at the result.



Smaller digits produce darker copies, larger digits produce lighter copies.

Inserting the carrier

- 2.) The filled carrier (see instructions) is inserted into the feed slot on the front of the unit as far as it will go. (Regularly ensure that both fans are in operation.)



Tim captures the carrier and automatically starts the copy.

Cooling

- 3.) After exposure, the lamp switches off by itself, roller and fan can continue to run depending on the temperature, this can take a few minutes.

Do not turn off the main switch while TIM is cooling down (the fans are running).

This is important so that the heat generated during copying is transported out of "TIM".

- 4.) If TIM is no longer required after the cooling process, it must be switched off again.

Copy process

Please refer to the separate instructions for using the copying foils and carriers. For reliable results, use only original material. Due to the heat generated during copying, the feed rate must be increased accordingly when making several copies in succession.

Carrier

A suitable carrier is absolutely necessary to avoid a document jam and to keep the device clean. It must be able to withstand the heat generated during exposure. It is best to use the carrier supplied, which has been specially developed for its application. Carriers are wearing parts and must be replaced from time to time. (contact your dealer)

Template size

You can use templates with a maximum width of 216 mm (8.5 inches).

Maintenance and repair

Cleaning of the interior (such as glass tube and drive roller)

- 1.) If wax adhesions, other impurities or even loose parts such as paper residues or similar are found on internal parts of the copier due to the wax-coated stencil papers, these must be removed immediately.
- 2.) Wax adhesions can best be removed with a suitable cleaner (non-flammable!) or a lint-free cleaning cloth after opening the cleaning flap.
- 3.) For this purpose, the magnetically closing cleaning flap can be opened after pressing -Push- and the position of the glass tube and drive roller can be selected as desired by pressing the orange switch (S) located inside.



- 4.) After cleaning, the unit should first be well ventilated with the cleaning lid open and only put back into operation when no more moisture from the cleaning agent can be detected. Then close the lid again.

Cleaning the housing

The housing can be cleaned with a mild commercial cleaning agent (e.g. dishwashing detergent).

Troubleshooting

Question: TIM cannot be switched on?

Response:

- Turn on TIM on the back panel.
- Make sure that the power cable is plugged in correctly.
- Check the fuses located on the circuit board.
- Contact your specialist dealer.

Question: TIM is very loud after a copy?

Response:

- It is quite normal that TIM is a bit louder after a copy. This is part of the cooling process.

Question: TIM is still loud after a few minutes?

Response:

- As soon as TIM has cooled down sufficiently, the fans switch off automatically.

Question: The red and green LED flashes alternating?

Response:

- TIM is too hot and must cool down.

Question: The green LED is on?

Response:

- TIM is ready for a copy.

Question: The red LED is permanently on?

Response:

- Error! contact your dealer.
Do NOT switch on TIM anymore!

Question: The green LED is on but I cannot make a copy?
make a copy?

Response:

- Lamp defective (contact your specialist dealer).
- Fuse of the lamp is defective (contact your specialist dealer)

Question: The glass tube is not turning while making a copy?

Response:

- It is not a mistake if the glass tube does not rotate during a copy.

Warranty

The information in this manual may be amended or changed at any time.

Each thermal copier has been extensively tested during and after production (function, clean result, electrical safety). Therefore, we guarantee proper functioning of the device for the legally prescribed period after purchase.



Excluded from the warranty are all parts made of glass such as lamp and glass tube. As well as damage caused by transportation.

In case of any malfunctions, please contact your specialist dealer first. For possible returns, please use the original packaging materials as well as the transport locks!

The manufacturer accepts no liability for errors in these instructions or for any consequences resulting from them.

Technical data

	Europe, Australia	USA, Canada.....
Rated voltage	230V / 50 Hz	115V / 60 Hz
Rated current	4,5A	9A
Internal fuse (lamp)	10 At – 5 x 20 mm	16 At – 0.2 x 0,8 Inch
Power consumption (max.)	1000 W	1000 W
Fuse protection socket	10 A	15A
Height	110 mm	4,3 inch
Depth	177 mm	7 inch
Width	420 mm	16,5 inch
Wheight	6 kg	13.25 lbs
Template size (max.)	210 x 300 mm	8,5 x 11 inch
Carrier size	230 x 350 mm	9,1 x 13,8 inch

Image transfer via Spirit Master in the thermal copier

When transferring tattoo motifs to the skin, please observe the locally applicable legal regulations!

Functionality

A thermal copier is used to produce a copy of an original using colored wax. The colored wax is transferred from a coated carrier film onto a sheet of paper. A very powerful lamp generates heat radiation in the unit, melts the wax over the dark areas of the original, and transfers it by pressure to the sheet of paper above.

Since the heat is generated by absorption almost exclusively in the blackened areas of the original, a white sheet is the suitable background in any case.

To ensure that all the sheets and foils used here can be transported safely through TIM, they must be placed one on top of the other in the correct order and inserted into a "carrier".

This carrier is very important for trouble-free transport in the device. It also protects the glass tube and silicone roller from damage and contamination.

As soon as the carrier becomes dirty or deformed, it should be replaced.

Copy process

To create a transferable copy you will need:

- A printed or drawn original on white paper.
- Spirit Master thermal copy paper
- Carrier of sufficient size

The "Spirit Mater" is a ready-made unit consisting of a yellow backing paper, a wax-coated violet/blue-green film, a light brown release paper and the white cover sheet.



Take a new "Spirit Master". Place it on the table with the yellow leaf facing down and lift off the top three leaves.



Your template is placed on the yellow sheet. The motif, i.e. the printed side points upwards, towards the wax foil.
Please note: an incorrectly inserted template results in no copy or a very weak copy. This is also reversed.



Now remove the light brown release paper between the wax foil and the white cover sheet. This cover sheet bears a colored copy of the template on the inside after the successful copying process.



The finished unit of template and Spirit Mater is now placed in the carrier. The white cover sheet is on top!



Set a medium speed on the feed controller of the cold unit.



After the copy has been made, remove the carrier from the top of the device. Now carefully tear off the white cover sheet towards the top.

The copy can now be transferred to the skin at the desired location.

For this purpose, different transfer liquids are used, ask your dealer for the version that matches the paper (must match).

If the copies are too weak, the controller must be set to a lower number. If the copies are too strong, the control must be set to a higher number.

Template creation

The template for a thermal copy has very specific requirements. Unfortunately, not every template is suitable.

Our experience shows that it is precisely in this area that the most frequent sources of error lie, resulting in a poor or unusable copy.

The carbon content of the black ink is of decisive importance for the suitability of an original for thermocopying. However, this cannot be seen with the naked eye, which is why you have to rely on experience or your own tests.

Suitable templates are:

- B/W copies from a standard copier.
- B/W printout from a laser printer
(Generally, matte-looking originals are better than glossy ones).
- Certain types of pencils / calligraphy pens
(Please try them out yourself).

Unsuitable templates are:

- B/W printout from a normal inkjet printer (inkjet with CMYK cartridges)
- Felt-tip pens, ballpoint pens or colored pencils
- Letterpress or newspaper printing
(in this case a copy of the desired page can be made with a carbon toner).

What to do if

Question:

When I want to make several copies in quick succession the copies get darker and darker?

Response:

It is very difficult to establish a general rule for this. However, experience has shown that the feed rate must be increased by 0.5 after each copy.

Thus, for example, the first copy is exposed at speed 4 and the second at 4.5.

Question:

The red transport roller in the device is dirty?

Response:

The thermal copier must always be operated with a suitable carrier. This protects the components in the device from the colored wax.

Question:

With my own carrier I do not get clean copies?

Response:

The temperature resistance of the carrier is important. Some film materials are not suitable!

Always use original carriers!

Damage caused by the use of unsuitable carriers is not covered by the warranty.

Question:

Some templates result in very different copies?

Response:

Always use the same printer to create the templates. If this is not possible, please adjust the feed rate accordingly.

Question:

After a copy, the device continues to run although the lamp is already off.

Response:

The device must cool down again after making one or more copies. (This can sometimes take a few minutes)