



# Safety Notes

General safety information .....	2	Proper usage .....	5
Safety symbols .....	2	Operating dangers, residual danger .....	6
Where are warnings given? .....	2	Starting up/operator requirements .....	6
Qualification for safe use .....	2	Correct product use .....	6
Avoiding injury and damage .....	2	Starting up, operation and servicing .....	6
General safety instructions .....	3	Packaging, storage, transport .....	7
Safety equipment .....	3	Environmental protection, disposal .....	8
Electrical safety .....	3	Environmental protection during	
Mechanical safety .....	3	operation .....	8
Electronic components .....	4	Disposal measures .....	8
Operation safety .....	4	Index .....	9
Electromagnetic compatibility .....	4		

## General safety information

### Safety symbols

Safety note (Warning sign and gray frame):

Warns of a possibly dangerous situation. Injury is possible, if care is not taken.



#### CAUTION!

What is dangerous?

What injuries could occur?

– *Take care by...*

– ...



Warning sign and arrow:

This symbol combination is being used to draw the attention to some important warning notes.

If those warnings are ignored, material damage or data loss is possible.

### Where are warnings given?

General notes on safety are found in this section.

Special safety notes and warnings are provided at the appropriate positions in the documentation and in other device documents.



Warning notes and warning symbols are also attached directly to the devices and device components. Pay attention to these safety notes as well!

### Qualification for safe use

#### Operation

In order to operate the devices described here safely and correctly, it is imperative that general and product-specific safety instructions included in this documentation are understood and put into practice.

#### Service

Commissioning and service personnel must be in possession of specialist knowledge about the devices concerned and be familiar with the generally applicable safety regulations.

### Avoiding injury and damage

Injury and damage can be avoided if you pay conscientious attention to the safety instructions detailed in this documentation, other product documentation and on the products themselves, and provided you act in a safe and cautious manner.

## General safety instructions

The following safety instructions refer to all of the products described in this documentation. Product-specific or more detailed information is provided where the corresponding facts are stated.

### Safety equipment

- The removal, bridging or disabling of safety equipment, safety functions and monitoring systems is forbidden.

Never remove e. g. covers, housings or any other safety guards. Do not operate the device or any of its parts if safety guards are ineffective or their effectiveness has been reduced.

- Devices and other parts may only be used in a technically perfect condition. Faults which can adversely affect safety must be corrected immediately.

### Electrical safety

- Before opening the housing, switch off the device and pull out the mains plug!

- Adhere to the required safety measures against too high a level of contact voltage. Do not take any action which could restrict the effectiveness of existing safety measures.

- Before putting a device into operation check the voltage setting. Disconnect the device from the power supply before altering the voltage setting!

Only use the correct replacement types when changing the fuses.

### Mechanical safety

- Be careful when operating equipment with opened cover hoods or devices with externally fitted winding spindles. Rotating parts can cause injury, and it is also possible for hair, clothing, jewellery, etc. to be caught in the machinery.

Ribbon and material should only be inserted and changed by specially instructed personnel (setup operation).

### Options

- Optional device components may only be installed by authorised personnel, and in accordance with the appropriate assembly and usage regulations.

### Cutter

- The cutter may only be installed by trained personnel.

### Electronic components

- ➡ Only plug in or remove interface connectors (Interface RS232/485) when the device is switched off.
- ➡ Only attach or remove the print head when the device is switched off. After switching off the device, wait at least 3 minutes before removing the print head.
- ➡ Only plug in or remove the cutter plug when the device is switched off. Ignoring this instruction can result in a defect to the device electronics.
- ➡ Plug-in cards should only be inserted or removed when the device is switched off. After switching off the device wait at least 60 seconds before removing, inserting or replacing plug-in cards.
- ➡ Protect electronic components, open circuit boards, vacant plug sockets, and other device parts which are connected with the internal wiring, against static charges.
- ➡ Pay attention to the necessary protective measures such as earthing, potential equalisation, conductive underlays, avoiding high-insulation materials, etc.

### Operation safety

- ➡ Do not switch off the printer during the printing process. Only switch off the printer in off-line mode (display OFF). After switching off the device, wait at least 10 seconds before switching it back on again.

### Electromagnetic compatibility

#### EMC

- ➡ Avoid electromagnetic and other interference effects on signal and connection wiring that are capable of initiating malfunctions which could endanger safety.

#### EMC, internal

- ➡ Do not take any action which could reduce the guaranteed EMC of the device. Pay attention to the following:
  - Do not remove any shielding covers, housing parts, protective sheeting, plug casings, etc.
  - Replace shielding after dismantling/repairing conductive connector points (e. g. screw connections, contact surfaces) in the original position
  - Do not remove interference reducing components (e. g. ferrite pearls, filters etc.)
  - Use stipulated connection systems; e. g. laying of cables, protective conductor connections, potential equalisations, connection points and the connection principles of earthing conductors and shielded wiring.

#### EMC, external

- ➡ Pay attention to the following when installing external wiring connecting devices or in connection with other means of automation:

## ALL DEVICES

- Lay signal wiring and electric power cables in physically separate locations.
- Lay wiring as close to metal surfaces (earth) as possible.
- Twist outgoing and return conductors of unshielded wiring.
- Only use shielded wiring for digital signals (data cables). Generously earth both shield ends.
- Keep wiring lengths to a minimum.
- Earth reserve cable and redundant strands at both ends (at least at one end).
- Attach network filters directly to the power supply.
- Pay attention to the connection systems and connection principles stipulated for the project in question.

## Proper usage

### Application

The printers, options and periphery devices described in the entire documentation are intended for printing labels with reel material and single labels. The heat transfer process and thermal direct printing are used for this purpose. It is possible to use the widest range of ribbons and materials. Different working widths are available depending on the model. A series of optional extras allow adaptations to be made for the most various of applications.

The printers and all additional components are constructed for use in rooms with normal ambient conditions (office climate).

The actual stipulated usage is detailed in the Technical Specifications of the respective devices.

### Specification

The Technical Specifications contained in this documentation, which are specific to each model, are definitive for all application cases. Other special documentation may also apply to delivered devices.

■■■■➔ In case of doubt, please refer to your supplier or directly to the manufacturer if you require more detailed information about using the devices under special conditions.



■■■■➔ If the device is used for any purposes other than those described here, this will be considered as improper use.

If the device is used for other purposes or incorrectly, injury or material damage may be caused. The manufacturer assumes no liability for such injury or damage.

Considered as improper use is especially:

- To operate the device with opened or removed hood.

## Operating dangers, residual danger

The devices and components described in the service manual correspond to the most up-to-date technology and offer the safety which can be reasonably expected taking all circumstances into consideration.

### Normal operation

No particular operating dangers will arise if the devices are used correctly (proper use), and if they are installed, put into operation and operated properly.



- ➡ There is a danger of injury in the vicinity of the cutter on printers fitted with this option if attention is not paid to the safety instructions on the device and in the corresponding manuals.

### Setup operation

- ➡ During operation with an open hood (setup operation, service), or with devices with externally fitted winding elements, residual danger exists from rotating parts in the vicinity of the ribbon and material transport.

Ribbon and material should therefore only be inserted and changed by specially instructed personnel (setup operation). Appropriate training is carried out by the company or by its appointees.

- ➡ The residual danger during the setup operation and servicing is reduced if careful attention is paid to possible sources of danger. Injury can be avoided by taking notice of the safety instructions.

## Starting up/operator requirements

### Correct product use

The devices can only be operated free of interference and safely if storage, transport, assembly, installation, commissioning, operation, maintenance and servicing are all carried out correctly.

### Expert knowledge

Proper means that the respectively required knowledge of all technical and safety aspects must be displayed and implemented in every area of device usage.

### Starting up, operation and servicing

Personnel starting up devices and device operators (users) must be familiar with the generally applicable regulations which are definitive for the application concerned. Safety instructions detailed in the manual must be understood and implemented.

### Starting up

- ➡ The installation, starting and setting up of the devices may only be carried out by qualified personnel, which has been trained accordingly by the manufacturer or its appointees.

### Changing mediums

Ribbon and material should only be inserted and changed by specially instructed personnel (setup operation).

### Operation

The devices may be operated or continually cleaned by operators who have been instructed by the manufacturer or its appointees, and who have been made aware of the possible dangers.

**Servicing**

- Special servicing, fault searching and fault correction are to be carried out by the manufacturer, his appointees or other authorised service agents. This also includes the optional installation and refitting of components.

**Packaging, storage, transport**

The packaging required for storage and transport is dependent on

- possible mechanical influences and
- possible climatic conditions.



- Damage can be caused in cases of improper packaging, storage or transport. This damage is the liability of the person causing it.

*Therefore, pay attention to the following:*

- *Heed the packaging, storage and transport regulations.*
- *Pay attention to the instructions in this documentation.*
- *Pay attention to the instructions on packaging material and transport means.*

**Original packaging**

Use the original packaging provided by the manufacturer or the supplier, or packaging of an equal quality if average (e. g. as are usual in the EU) mechanical and climatic demands must be met on the transport route.

**Protection**

Avoid subjecting the packaging to too much external mechanical strain (e. B. through sharp or blunt objects). Only stack packed devices on top of each other if the packaging safely keeps the load from the device.



Dispose of the packaging material in an environmentally compatible manner. Instructions regarding disposal can be found in the section "Environmental protection, disposal".

**Transport**

Ensure that the device is loaded and transported without any danger of slippage or tilting.


When transporting under extreme conditions (e. g. on open vehicles, under unusually jolty conditions, by sea or in subtropical countries), it is necessary to use additional or different packaging which is especially suited to such conditions.

**Storage**

Store the device so that it cannot be affected by damaging environmental or local conditions.

During storage avoid continuous, and above all abrupt, changes in temperature. This is particularly damaging if dampness is able to condense.

- The thresholds detailed in the "Technical Specifications" (permitted ambient temperature, ambient humidity, vibration stress) apply in all cases for storage and transport. If in doubt, contact your supplier or the manufacturer.

-  Refer to your supplier, the appropriate disposal firms or directly to the manufacturer if you have any disposal problems. The manufacturer can provide you with information and help you to dispose of components from the printer range in a modern and environmentally compatible manner.



## Index

### A

Application cases ..... 5

### C

Changing mediums ..... 6

Changing the fuse ..... 3

Circuit boards, protection ..... 4

Commissioning..... 6

Components..... 7

Components, protection ..... 4

Condition, safety aspect ..... 3

Connection systems ..... 4

### D

Damage..... 7

Device components, installation..... 3

Disposal ..... 8

Disposal measures..... 8

Disposal problems..... 8

Disposal systems ..... 8

Do not remove..... 4

### E

Earthing..... 4

Effectiveness of safety measures ..... 3

Electrical safety ..... 3

Electromagnetic compatibility..... 4

Electronic components..... 4

Electronic scrap..... 8

EMC ..... 4

Emissions..... 8

Environmental impact..... 8

Environmental protection ..... 8

Environmental protection, during operation 8

Exchange service ..... 8

Expert knowledge..... 6

### F

Fault correction ..... 7

Ferrite pearls ..... 4

filters..... 4

### I

Improper ..... 5

Interface connectors, plug in/out..... 4

interference effects, electromagnetic ..... 4

### K

Knife ..... 3

Knife plug, plug in/out..... 4

### L

Label printing..... 5

### M

Manufacturer, liability ..... 5

Material change ..... 6

### N

Normal operation ..... 6

Note signs ..... 2

### O

Open the housing ..... 3

Operating dangers..... 6

Operation..... 6

Operation safety ..... 4

Original packaging..... 7

### P

Packaging..... 7

Packaging material..... 7

Packaging, additional ..... 7

Personnel, instructed..... 6

plug sockets, protection..... 4

Plug-in cards, removing/inserting ..... 4

Potential equalisation ..... 4

Print head, attaching/removing..... 4

Problem materials ..... 8

Product service life ..... 8

Product use ..... 6

Product, usage ..... 5

### Q

Qualification..... 6

### R

Recycling..... 8

Regulations, generally applicable..... 6

Replace ..... 4

Requirements, putting into operation/operator 6

residual danger..... 6

Residual danger, minimisation ..... 6

Reutilisation..... 8

Ribbon change ..... 6

Rubbish ..... 8

### S

Safety equipment ..... 3

Safety functions..... 3

Safety instructions ..... 2

Safety instructions, general ..... 3

safety instructions, product-specific ..... 2

Safety symbols ..... 2

Safety, mechanical ..... 3

Service agent ..... 7

Servicing..... 7

## ALL DEVICES

Setting up .....	6	Transport route .....	7
Setup operation .....	6	Transport, difficult .....	7
Shielding .....	5	<b>U</b>	
specialist knowledge .....	2	Up-to-date technology .....	6
Stipulated usage .....	5	usage safety .....	2
Storage .....	7	Use, correct .....	6
Switch off, only off-line mode .....	4	<b>V</b>	
Symbols .....	2	Voltage setting .....	3
<b>T</b>		<b>W</b>	
Thresholds .....	7	Warnings, where? .....	2
Training .....	6		
Transport .....	7		