Overview

Overview Table

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</table>
1 Safety Information

- Read and understand the instructions in this manual before you use the instrument.
- Keep this manual for future reference.
- Include this manual if you pass on the instrument to other parties.

If the instrument is not used according to the instructions in this manual or if it is modified, the safety of the instrument may be impaired and Mettler-Toledo GmbH assumes no liability.

1.1 Definition of signal warnings and symbols

Safety notes are marked with signal words and warning symbols. These show safety issues and warnings. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results.

WARNING for a hazardous situation with medium risk, possibly resulting in death or severe injury if not avoided.

CAUTION for a hazardous situation with low risk, resulting in minor or moderate injury if not avoided.

NOTICE for a hazardous situation with low risk, resulting in damage to the balance, other material damage, malfunctions and erroneous results, or loss of data.

Note (no symbol) for useful information about the product.

1.2 Product specific safety notes

Your instrument corresponds to the state of the art technology and complies with all recognized safety rules, however, certain hazards may arise in extraneous circumstances. Do not open the housing of the instrument: It does not contain any parts which can be maintained, repaired or replaced by the user. If you ever have problems with your instrument, contact your authorized METTLER TOLEDO dealer or service representative.

This printed document must be read and understood before using the instrument. This printed document must be retained for future reference.

Always operate and use your instrument only in accordance with the instructions contained in this document. The instructions for setting up your new instrument must be strictly observed.

If the instrument is not used according to the Operating Instructions, protection of the instrument may be impaired and METTLER TOLEDO assumes no liability.

The instrument must not be altered or modified in any way. Only use METTLER TOLEDO original spare parts and accessories.
**WARNING**

**Risk of electric shock**

1. Do not open the AC adapter housing. Make sure that the AC adapter does not come in contact with liquids.
2. Use only the 3-pin power cord with equipment grounding conductor which was supplied with your instrument and only a 3-pin grounded outlet must be used.

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**Operating conditions**

- The printer must be used in dry interior rooms only.
  For the ambient conditions see at section [General technical data > 11].
- The printer should be acclimated to room temperature.
- The printer should not be used in the presence of humidity and liquids.
2 Installation and putting into operation

Finding more information
Additional information about this printer can be found in the Operating Instructions on the CD-ROM or online.

➤ www.mt.com/lab-printers

2.1 Scope of delivery

1. Open the package and remove the printer and the accessories.
2. Check the completeness of the delivery.
The following accessories are part of the equipment:
• P-52RUE dot matrix printer
• Paper rotary axis (already installed)
• 1 ribbon cartridge (already installed)
• 2 rolls of paper
• Universal AC adapter
• Country-specific power cable
• USB cable
• RS232 cable
• User Manual
• Declaration of conformity
• CD-ROM (containing software and operating instructions in different languages)

2.2 Connecting the printer to the power supply

⚠️ WARNING
Risk of electric shock
1. Do not open the AC adapter housing. Make sure that the AC adapter does not come in contact with liquids.
2. Use only the 3-pin power cord with equipment grounding conductor which was supplied with your instrument and only a 3-pin grounded outlet must be used.

⚠️ NOTICE
Use only the original AC adapter delivered with your printer.
– Do not try to use this AC adapter for other METTLER TOLEDO instruments, otherwise they could be damaged.
The printer must be switched off.

1. Connect the AC adapter to the connection socket on the back of the printer.
2. Lock the connector with the screw nut.
3. Connect the 3-pin grounded power cable to the socket for the AC adapter.
4. Connect the power cable to the mains.

2.3 Inserting the paper roll

Note
We recommend to use only specified paper from METTLER TOLEDO (see at section Accessories and spare parts).

Note
The printer has a push-to-open mechanism to open the printer cover. The printer cover must be pushed down in the middle at the mark.

- The printer is switched on.
1. Push down the printer cover.
2. Open the printer cover.
3. Remove the paper cutter.

4. Remove the paper rotary axis from the printer frame.
5. Insert the rotary axis into the paper roll.

Note
The paper roll must unroll in the correct direction (see picture).

6. Place the paper roll into the printer frame.
7. Unroll the paper and stick the paper end into the 5 mm slot between the printer head and the metal plate.
8 Press [ ].
   ⇒ The printing head pulls the paper in.
9 Press and hold [ ] until some paper has been fed.
10 Close the printer cover.

2.4 Connecting the printer to a METTLER TOLEDO instrument

**NOTICE**
We recommend connecting the printer to only one instrument at a time. If several instruments are connected to the printer at the same time METTLER TOLEDO cannot assume the correct functionality of the printer.

2.4.1 Connecting the printer via the RS232 connection
- The printer has been connected to the mains.
1 Use the RS232 cable to connect the printer to the METTLER TOLEDO instrument.
   **Note**
   The RS232 connection settings of the printer and of the instrument must be identical.
2 Switch on the printer.
   **Note**
   The function **Auto baudrate detection** is switched off by default. It can be switched on if the printer is connected with the RS232 connection and if the connection settings (Baudrate, Bits / Parity, Handshake) of the printer differ from the settings of the balance. More information about activating the function **Auto baudrate detection** can be found in the section Menu.

**System default settings**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baudrate</td>
<td>9600</td>
</tr>
<tr>
<td>Bits / Parity</td>
<td>8 / None</td>
</tr>
<tr>
<td>Auto Baudrate</td>
<td>Off</td>
</tr>
<tr>
<td>Stop bits</td>
<td>1 Bit</td>
</tr>
<tr>
<td>Handshake</td>
<td>XOn/XOff</td>
</tr>
<tr>
<td>Char Set</td>
<td>UTF-8</td>
</tr>
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</table>

2.4.2 Connecting the printer via the USB connection
Use the USB connection cable to connect the printer to a balance or a PC.

**Note**
For connecting the printer to a PC, a printer driver must be installed on the PC. The printer driver should automatically being installed by the operating system when the printer is connected to the PC with the USB cable. If there is an issue with the printer driver, it can be downloaded from [http://www.ftdichip.com/Drivers/VCP.htm](http://www.ftdichip.com/Drivers/VCP.htm). If there is still an issue, please contact your IT expert or a local METTLER TOLEDO representative.
2.5 Connecting the printer via the Ethernet connection

The printer can be connected to an instrument via Ethernet. Before connecting to the Ethernet, the printer network settings must be configured with the software NetSettings that can be found on the CD-ROM or ordered at your METTLER TOLEDO representative.

**Note**

For installation and configuration of the Ethernet interface you need to have basic knowledge of TCP/IP-based networks, and of network technology in general. If necessary, contact the network administrator of your IT department or your IT support.

- The NetSettings software has been saved on the PC.

1. Switch on the printer
2. Connect the printer to the PC with the USB connection cable.
   - The PC installs the printer driver.
3. Start the NetSettings software.
   - The following window opens:

4. Chose **Connection port / COM (USB)**.

5. Press **Get**.
   - The system automatically fills out the settings. The value for **Alias Name** and **MAC Adress** are automatically generated from the system.

6. Select **Static IP** or **DHCP** to define the values for **IP Adress**, **Subnet Mask** and **Default Gateway**.
   - The Ethernet definition of the printer has been defined. The printer can be connected to the Ethernet.
3 Maintenance

**WARNING**

Risk of electric shock

1. Before cleaning or performing maintenance work, disconnect the printer and the AC adapter from the power supply.
2. Take care that no liquid penetrates into the printer or the AC adapter.

**NOTICE**

Never open the housing of the printer or the AC adapter – they contain no components, which can be cleaned, repaired or replaced by the user.
Use only the power cable from METTLER TOLEDO.

3.1 Cleaning the housing

**Note**
The printer housing is made of top grade, resistant materials. Therefore, all commercially available mild cleaning agents can be used.

3.2 Disposal

In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device. Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.
4 Technical data

4.1 General technical data
AC/DC Adapter: Primary: 100 V - 240 V, ±10%, 50/60 Hz
Secondary: 24 V DC, 2.5 A (with electronic overload protection)

Power supply to the printer: 24 V DC, 2.5 A

Protection and Standards
Overvoltage category II
Degree of pollution 2
Standards for safety and EMC Declaration of Conformity (part of standard equipment)
Range of application Indoor use only

Environmental Conditions
Height above mean sea level up to 4000 m
Ambient temperature range Operation: 5°C ~ 40°C
Storage: -25°C ~ 60°C
Relative air humidity 20% ~ 80% up to 31°C decreasing linearly to 50% at 40°C, non-condensing
Connections • RS232 port (Male DB 9)
• USB device port (B-type)
• Ethernet 10/100base-TX port (RJ-45)

Printer Features
Print technology Dot matrix
Printing unit Dot matrix printer 5x7, 24-character line length
Printing speed 2.3 lines per second
Print quality Light resistant and thermally stable printing (GLP, GMP, ISO 9001)

Materials
Top housing Die-cast zinc, chromed and plastics (PBT)
Bottom housing Plastics (PBT)
Paper cutter Plastics (PBT)
Paper cutter slot Polycarbonate plastics (PC)

Software NetSettings
System requirements PC with Microsoft Windows 7, 8, 10
Printer driver
Link http://www.ftdichip.com/Drivers/VCP.htm

Dimension / Weight
Length 220 mm
Height 88 mm
Width 130 mm
Net Weight 1.25 kg, without AC/DC adapter
GWP®
Good Weighing Practice™

GWP® is the global weighing standard, ensuring consistent accuracy of weighing processes, applicable to all equipment from any manufacturer. It helps to:
- Choose the appropriate balance or scale
- Calibrate and operate your weighing equipment with security
- Comply with quality and compliance standards in laboratory and manufacturing

[www.mt.com/GWP](http://www.mt.com/GWP)