Zebra® TTP 7030™
Kiosk Receipt Printer

Operator Guide
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FCC Radiation Exposure Statement (for printers with radios or RFID encoders) This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
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Introduction

About This Manual

This manual contains the information required to install and operate the TTP7030 printer and to run it from a host computer such as a PC.

Updating

This manual will be updated as, from time to time, printer functions and features may be added or amended. You will always find the latest edition on our web site (http://www.zebra.com).

If you require functions not found in this manual edition, please contact Technical Support for your region or the Zebra partner the printer was purchased from.
Contacts

Technical Support via the Internet is available 24 hours per day, 365 days per year.

**Web Site:** [www.zebra.com](http://www.zebra.com)

**E-mail Back Technical Library:**
- E-mail address: emb@zebra.com
- Subject line: Emailist

**Self Service Knowledge Base:** [www.zebra.com/knowledgebase](http://www.zebra.com/knowledgebase)

**Online Case Registration:** [www.zebra.com/techrequest](http://www.zebra.com/techrequest)

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<th>The Americas</th>
<th>Europe, Middle East, and Africa</th>
<th>Asia Pacific and India</th>
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</thead>
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<th>Technical Support</th>
<th>Repair Service Department</th>
<th>Technical Training Department</th>
<th>Inquiry Department</th>
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<td>To request a repair in the U.S., go to <a href="http://www.zebra.com/repair">www.zebra.com/repair</a>.</td>
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<th>For back-to-base service and repair.</th>
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<td>F: +1 847 793 6864</td>
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<th>Inquiry Department</th>
<th>For product literature and distributor and dealer information.</th>
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<td>T: +1 877 ASK ZEBRA (275 9327)</td>
<td>T: +44 (0) 1628 556037</td>
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<td>E: <a href="mailto:inquiry4@zebra.com">inquiry4@zebra.com</a></td>
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<th>Customer Service Department (US) Internal Sales Department (UK)</th>
<th>For printers, parts, media, and ribbon, please call your distributor or contact us.</th>
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<tr>
<td>T: +1 877 ASK ZEBRA (275 9327)</td>
<td>T: +44 (0) 1628 556032</td>
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<td>E: <a href="mailto:clientcare@zebra.com">clientcare@zebra.com</a></td>
<td>E: <a href="mailto:cs@zebra.com">cs@zebra.com</a></td>
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**Key:**
- T: Telephone
- F: Facsimile
- E: E-mail
The TTP 7030 kiosk printer uses direct thermal printing. The print speed is up to 75 mm per second.

The printer has an integrated control board. The TTP 7030 communicates with the host computer through the USB interface and can be equipped with an optional serial port.

Printer drivers for Microsoft Windows™ are available, and the printer is compatible with the Plug and Play standard. It is also possible to address the printer directly from the kiosk software without using drivers.

The loop generating presenter mechanism handles documents of various lengths. It holds the printout until printed, then cuts and presents the complete printout to the customer. The retract-and-retain version of the printer can retract uncollected printouts into a wastebasket inside the kiosk.

A flip-up print module gives the operator access to the paper path, and print head, for maintenance purposes.
Figure 2 • Printer Exterior, Side View

- Status indicator
- Feed-forward button
- Paper entry
- Print mechanism flip-back handle
- Paper release lever
- Print head lifted
- Paper released
- Normal operation
- Paper exit
- Control board
- FRONT
Indicators

Status Indicator

The status indicator (see Figure 1, Printer Exterior, Rear View, on page 7) has several functions:

| ON constantly | Indicates that the printer is operational. |
| Flashes, pauses, flashes | Indicates warnings of non-severe error. The number of flashes reflects the warning-code: |
| | • 2 flashes: Paper low |
| | • 3 flashes: Weekend low |
| Note • This signaling is disabled by default. It can be disabled/enabled by setting parameter P52. |
| Flashes rapidly | Indicates severe error. Hold down the Feed button and the number of flashes will reflect the error-code. |
| | • 1 — Presenter jam, paper cannot be ejected / retracted |
| | • 2 — Cutter cannot return to home position |
| | • 3 — Out of paper |
| | • 4 — Printhead lifted |
| | • 5 — Paper wrapped around platen (under head) |
| | • 6 — Temp error >60°C |
| | • 7 — Presenter jam, motor cannot rotate |
| | • Fast flashes — Checksum error, firmware |
| | • Steady light — Wrong firmware type |

Error-codes are reset:

- When the conditions causing them are removed.
- When the printer is turned off/on.
- When the blue printhead release arm is lifted and then lowered.

Control Board Indicators

The control board has two power indicators behind the power connector:

- Green indicator constantly ON: 24 V present
- Red indicator constantly ON: 5 V OK (generated on control board)
Feed Button

The Feed button will feed, cut, and present a complete page.

Any data in the print buffer will be printed. If the buffer is empty the page will be blank.

In black mark mode, the page will be synchronized with the black mark.

Press and hold the Feed button while turning on the power, or while opening and closing the printhead to print a self-test printout. See *Making a test printout on page 14.*
Installation Considerations

The TTP 7030 printer is designed to be installed in an enclosure such as a self-service kiosk. The illustration below gives an example of a printer-mounting shelf.

Figure 3 • Example of a Simple Shelf for Fastening a Standard Printer

Additional space is required for paper loading and paper jam removal. Consider mounting the printer on a movable platform so that the printer can be maintained outside the kiosk enclosure.
Electrostatic Discharges, and Earth Currents

Preventing ESD and earth currents from affecting the printer operation requires proper connection of the printer chassis to protective earth through a mounting platform or through a separate earth conductor.

Ambient Light

There is an optical sensor just inside the paper exit at the front of the printer.

To ensure proper printer operation, design the printer enclosure so that it prevents direct sunlight or light from indoor lamps from reaching the sensor through the paper exit.
Connecting To The Computer

Caution • Using a non-Zebra power supply may cause excessive EMC interferences and void the EMC certifications of the printer.

Connect the TTP 7030

1. Connect J13 of the printer to the USB port of the computer or the USB hub to be used. USB connectors can be recognized by the following symbol:

   ![USB symbol]

   Figure 4 • USB Cable with Type A and Type B Connectors

   ![USB cable diagram]

Using a Serial Adapter

1. Loosen the control board module.

2. Connect the serial adapter to J4 on the control board.

3. Fasten the control board module.

4. Fasten the serial adapter with the two screws on the right hand side of the printer.

5. Connect a serial cable between the printer and the computer to be used.

Important • We strongly recommend using the Zebra cable because many incompatible cables are available.

Note • Connector J13 is a 4-pin USB type B connector.

Note • A suitable cable is available from Zebra.
Figure 5 • Fitting a serial adapter to the printer.
Connecting the Power

Using the Zebra power supply.
1. Make sure the line voltage selector on the power supply is set to your local line voltage (only PSU 01035-014).
2. Connect the cable from the power supply to J8.
3. Connect the power cable to the line outlet.
4. Apply power to the printer.

If you use another type of power supply unit, connect the voltages as shown in Figure 6.

![Important]

The protective ground and the 24V ground must be separated in the power supply to avoid ground loops!

At the printer end of the cable, use an Tyco Mate-N-Lok connector housing and two contact-sockets:

**Figure 6 • Power Connection**

<table>
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<th>Tyco No. 350777-1</th>
<th>Tyco No. 350689-1</th>
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<tr>
<td>![Diagram of GND and +24V connections]</td>
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**Table 1 • Current Consumption**

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<td>Idle</td>
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<td>150 mA</td>
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<tr>
<td>Standard text printing</td>
<td>2.5 A average</td>
<td>3.5 A average</td>
</tr>
<tr>
<td>All black printing</td>
<td>8.5 A</td>
<td>11 A</td>
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## Making A Test Printout

1. Is a power button available for the printer?

<table>
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<th>If...</th>
<th>Then...</th>
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</table>
| Yes   | a. Remove power from the printer.  
|       | b. Hold the feed-forward button depressed while powering ON the printer.  
|       | c. Keep the button depressed until printing starts. This produces a printout showing the firmware program version and date, control board revision number and serial number, name of loaded fonts and logotypes, and the parameter settings.  
|       | d. Each successive press of the button will produce a test printout.  
|       | e. Switch the printer OFF and ON again to exit self-test mode. |
| No    | a. Lift the printhead.  
|       | b. Press and hold the Feed button while lowering the printhead, and keep it pressed until after the auto-load is completed.  
|       | c. Release the button. A self-test printout will be printed.  

**Note** • this feature was introduced in firmware version 2.44b.
Installing A Printer Driver

Paper Level Sensors

The printer has inputs for one paper-near-end sensor, and one weekend sensor.

Figure 7 • Paper Level Sensor Indicators on Roll Holder

The paper-near-end sensor alerts the system when a couple of meters of paper remain on the roll. The purpose of this sensor is to get an early alert so that you can replace the paper roll in time in remotely located kiosks.

The weekend sensor should alert when the remaining paper does not last over a weekend. A reason to use this sensor is that it is more expensive to get a service technician out on a weekend or holiday than it is to replace the roll before it is totally empty.

The Zebra 150 mm paper roll holders are equipped with paper-near-end sensor only, while the 250 mm roll holders have both paper-near-end and weekend sensors.

When installing the Zebra roll holder just connect the cable from the roll holder to connector J1 at the back of the printer. See Figure 1, Printer Exterior, Rear View, on page 7.

If you use custom designed roll holders, connect the sensors according to Figure 8, Paper-near-end Sensor Connection, on page 20.
Figure 8 • Paper-near-end Sensor Connection

Sensor levels:
- <0.7 V with paper
- >3 V without paper
Installing a Paper Roll

1. Turn the new paper roll as shown. The paper should be inserted into the printer with the temperature-sensitive side up.

   **Figure 9 • Paper Roll Orientation**

   ![Figure 9](image1)

   1. Temperature-sensitive coating

2. Tear off a full turn of the paper (approximately 0.5 m) from the new paper roll.

   **Caution** • This is important since the outer end of the paper is usually fixed to the roll with some type of glue or self-adhesive substance that might otherwise cause paper jam or even print head damage.

   **Figure 10 • Tear off 0.5 m from the new paper roll**

   ![Figure 10](image2)

   2. Glue or similar substance

3. Make sure the printer is turned ON.
4. Cut the paper in a suitable angle. See Figure 11.

**Figure 11 • Suitable paper edge for auto load**

![Figure 11](image-url)

**Note** • The paper sensor is on the same side as the blue paper release lever (where the arrow points in Figure 12, *Insert the New Paper, on page 23*). If the paper is cut in a direction opposite to that as shown in the figure above, the sensor will not detect the paper.

5. Insert the paper through the paper entry opening at the back of the printer.

The printer will now feed, cut and eject a printout, and then automatically go on-line.

**Note** • In high temperature and high humidity, the paper may lose its stiffness resulting in paper jam at automatic paper loading. In such cases, load paper manually.

**Figure 12 • Insert the New Paper**

![Figure 12](image-url)
Clearing Paper Jams

Should a paper jam occur, follow the procedure below:

1. Tear off the paper close to the paper roll and open the print module.

2. Lift the print head by pushing the paper release lever upwards.

3. Remove all jammed paper by gently pulling the paper up and out of the print module. Make sure the paper path is clear and then close the printhead.

**Caution** • NEVER pull paper backwards through the print mechanism.