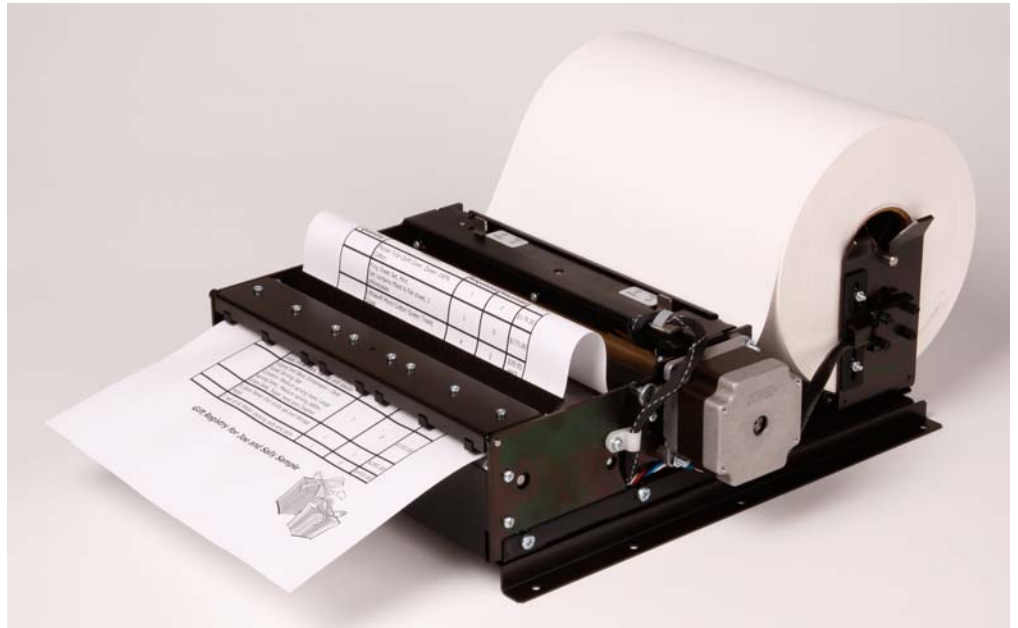




Zebra® TTP 8000

Kiosk Receipt Printer

Operator Guide



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이 기기는 가정용(B 급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

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Introduction

About This Manual

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

The TTP 8000 series consists of TTP 8200 with a resolution of 203 dpi, and TTP 8300 with a resolution of 300 dpi. This manual applies to both versions and notes are made where they differ.

Programming [on page 31](#) gives the applicable control-codes and escape-sequences supported by the printer processor firmware.

Other chapters of the manual contain information about the printer status codes, communications parameters, test print functions, specifications, etc.

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.

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Subject line: Emailist

Self Service Knowledge Base: www.zebra.com/knowledgebase

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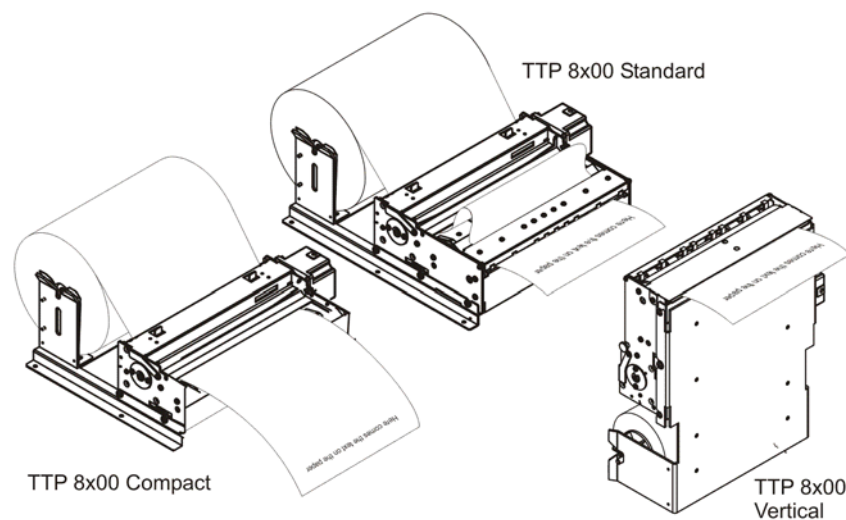
Key: T: Telephone
F: Facsimile
E: E-mail



Product Presentation

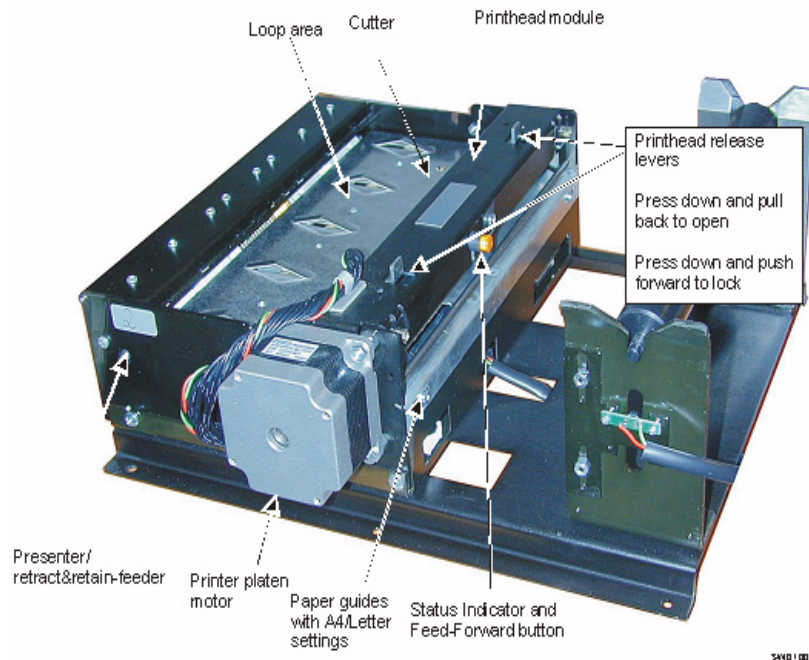
The TTP 8000 kiosk printer series consists of a family of printers that will print A4 or Letter paper width depending on the printer configuration. Different configurations and paper handling options are available.

Figure 1 • TTP 8000 Printers



Note • Roll holders shown in [Figure 1](#) are options.

Figure 2 • Printer Exterior, Side View



The TTP 8000 series of kiosk printers use direct thermal printing. The print speed is up to 100 mm per second.

The printer has an integrated control board that communicates with the host computer through either an USB orIEEE-1284 bi-directional parallel port. Printer drivers for Microsoft Windows are available. The USB and parallel interface printers are compatible with the Plug and Play standard. It is also possible to address the printer directly from the kiosk software without using a driver.

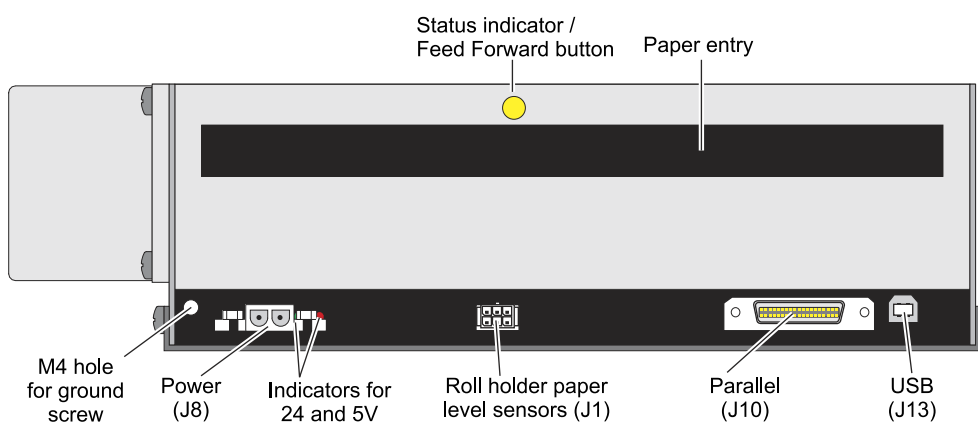
The flip-up printhead and presenter modules give the operator complete access to the paper path for maintenance purposes.

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” function can retract uncollected printouts into a wastebasket inside the kiosk.



Note • The compact version of the printer does not have presenter or retract function, and the vertical printer has limited use of retract as the retract path faces the same direction as the normal eject path.

Figure 3 • Printer Exterior, Rear View



Indicators

The status indicator flashes in various sequences to indicate specific statuses or warnings.

The status indicator (see [Figure 3, Printer Exterior, Rear View, on page 9](#)) has several functions:

ON constantly	The printer is operational.
Flashes rapidly	Indicates error. Hold down the feed-forward button and the number of flashes will reflect the status-code. See Table 1 .
Flash, pauses, flash	Indicates warnings of non-severe error. The number of flashes reflects the warning-code. See Table 2 .

Table 1 • Status Codes

Number of Flashes	Status Code Description
1	Paper jam in presenter
2	Cutter cannot return to home position
3	Out of paper
4	Printhead lifted  Note • Only available on printers with printhead open sensor installed.
5	Paper wrapped around platen (under head)
6	Temp error, printhead is above 60°C
7	Presenter not rotating
Fast flashes	Checksum error, firmware
Steady light	Wrong firmware type
Off	No firmware is loaded, or wrong firmware checksum

Status-codes are reset:

- When the conditions causing them are removed.
- When the printer is turned off/on.
- When the printhead is lifted and then lowered. On printers without printhead lifted sensor, remove paper, install again, and press the Feed button to reset.
- When the hardware reset command is received.

Table 2 • Warning Codes

Number of Flashes	Warning Code Description
2	Paper low  Note • This signaling is disabled by default. It can be disabled/enabled through parameter setup
3	Weekend low*

*. Warning-codes are reset automatically when the cause for them are removed.

Control Board Indicators

The control board has two power indicators behind the power connector. To see the indicators, open the printhead and look down between the platen and the printer frame.

Table 3 • Control Board Indicators

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

Feed Button

When you have inserted the paper under the printhead, press the Feed button and the printer will feed it forward, cut and eject a printout, then switch to on-line mode. Each press on the Feed button will feed, cut, and present one form length.

Using the Feed button:

Is there paper in the presenter section of the printer?

If...	Then...
No	Press the Feed button once to make a Form Feed. (Feed, cut, and present a complete page.) In black mark mode, the page will be synchronized with the black mark.
Yes	Press the Feed button once to clear the presenter.

When auto-loading paper, and the paper does not feed straight:

1. Press the Feed button once to stop the loading process.
2. Correct the error.
3. Press the Feed button once more to commence with the loading.

When loading paper manually:

1. After closing the printhead, press the Feed button to feed-cut-eject one page.
2. Press and hold the Feed button while turning on the power to print a self-test printout. See page [Making a Test Printout on page 19](#).

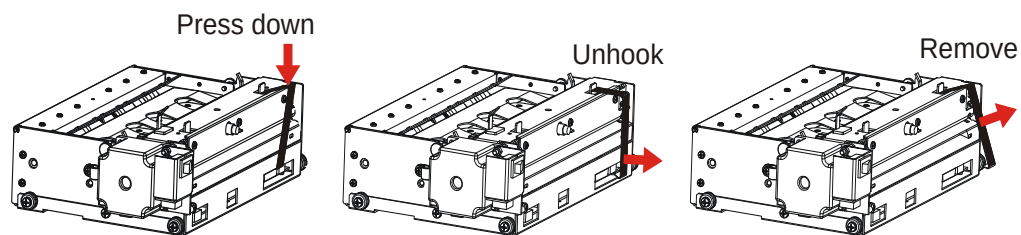
Installation



Unpacking

When a new printer is delivered the printhead is secured with a shipping strap. Remove this by pressing it downwards and disengage it from the parallel interface hole, then turn it up and remove the shipping strap.

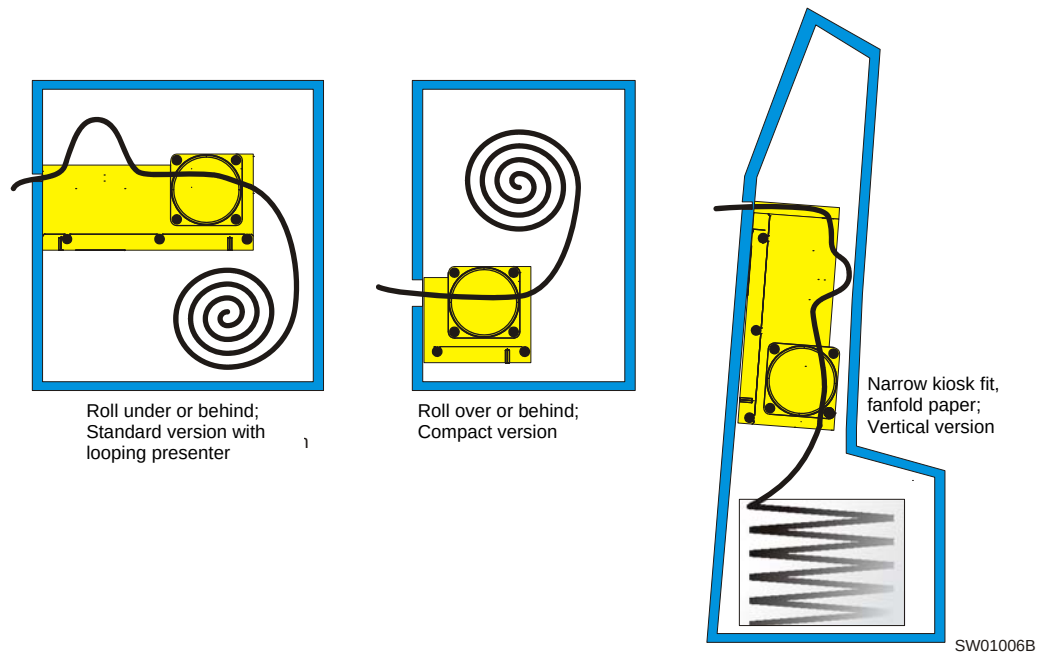
Figure 4 • Removing the Shipping Strap



Installation Considerations

There are a number of printer mounting options available to install the TTP 8000 printer in a self-service kiosk enclosure, as illustrated in [Figure 5](#). See also *Printer Dimensions* on [page 115](#).

Figure 5 • Installation Options



Additional space is required for paper replenishment and paper jam removal. Consider mounting the printer on a movable platform so that the printer can be maintained outside the kiosk enclosure.



Important • It is essential for the function of the printer that the paper is rolled in the correct direction for the model of printer that you have.

Table 4 • Media Mounting Configurations

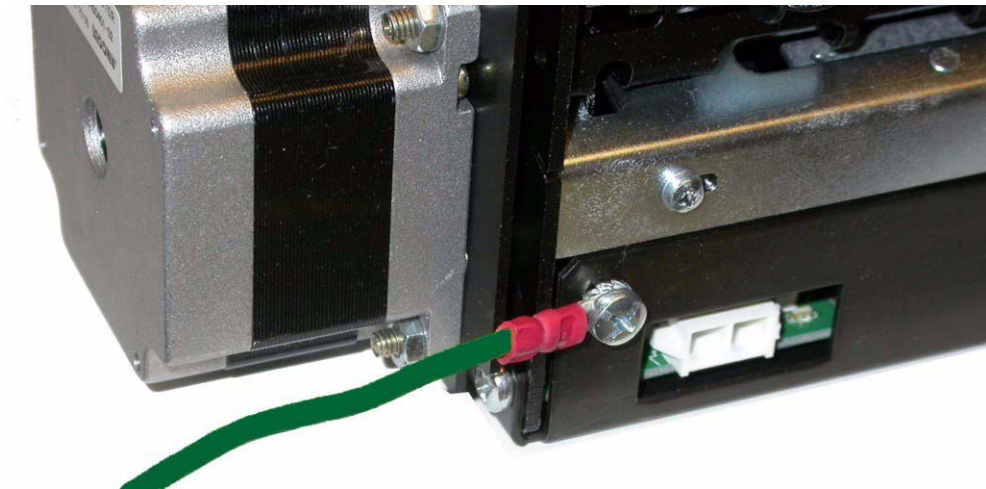
Media Type	Standard	Vertical	Compact
Roll media	X	X	X
Fanfold media	X	X	X
Roll behind printer	X	X	X
Roll under printer	X	X	X
Roll above printer			X
Thermal coating outside of roll	X	X	X
Thermal coating inside of roll			X

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. The signal ground is *not* connected to protective earth (chassis) inside the printer.

See [Figure 6](#). Fasten an earth cable to the printer using an M4x6 screw. Always put a lock washer between the chassis and the connector.

Figure 6 • Attach Earth Cable



Ambient Light

There are optical sensors 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

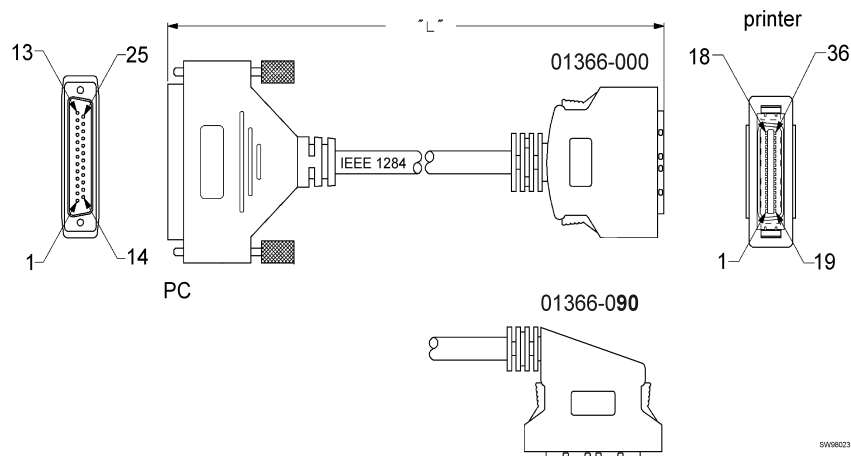


Caution • Using a non-approved cable with the printer may void the FCC and other EMC approvals of the printer.

Using the Parallel Interface

1. Connect the printer to the parallel port of the computer to be used.
2. Connector J10 is an IEEE-1284 type C, 36-pole mini Centronics, with clip latches. See [Figure 21 on page 98](#) for pin assignment of J10.
3. Use only certified cables marked IEEE-1284. See *Part Number List on page 126* for cables from Zebra Technologies.

Figure 7 • IEEE-1284 cable with Type A and Type C Connectors



Using the USB Interface

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: .
2. Connector J13 is a 4-pin USB type B connector. See *USB* on page 100 for pin assignment.

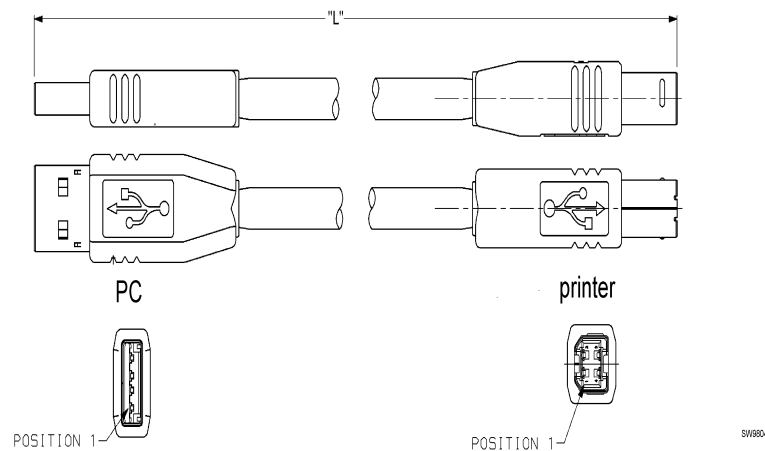
A suitable cable is available from Zebra, see *Part Number List* on page 126 for part number.



Note • The USB interface on printers with hardware revision A does not trigger enumeration in Windows when the printer is reset. Reset occurs after font, logotype, firmware and parameter storage. This means that the printer will disappear from the list of available printers at reset, and appear again when the PC is restarted. In normal operation this will not happen. Powering off/on the printer starts enumeration.

You can see the hardware revision on the self-test printout.

Figure 8 • USB Cable with Type A and Type B Connectors



Connecting the Power



Caution • Use only the recommended Zebra power supply (see *Part Number List* on page 126 for part number).

1. Attach a ground cable to the ground screw on the printer.
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 according to the following illustration.



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

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

Figure 9 • Power Connection

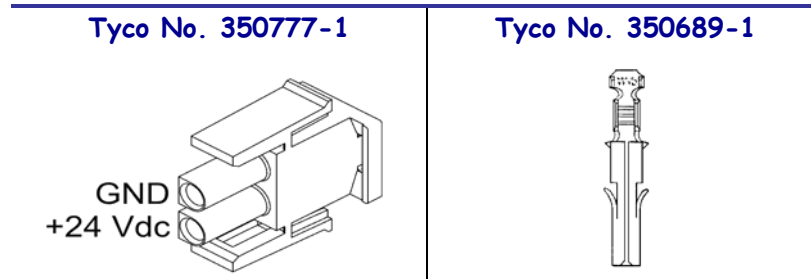


Table 5 • Current Consumption at Factory Default Settings

Print Density	TTP 8200	TTP 8300
None (Idle)	0.15 A	0.15 A
10% coverage	1 A	2 A
20% coverage	2 A	3 A
30% coverage	3 A	4 A
40% coverage	4 A	5 A
50% coverage	5 A	6 A
All black printing	10 A	12 A



Note • Print speed, burn time, and temperature affects these values.

Making a Test Printout

You can make a self-test printout if you want to verify that the printer operates correctly. See [Self-test Printout and Other Power ON Modes on page 27](#).

Paper Path Adjustment

Paper Width

When delivered, the paper width is adjusted to 210-mm for A4, and 216-mm for Letter paper versions of the printer. To adjust the width, do as follows:

- Loosen the two screws on each side that holds the guide wings (see [Figure 2, Printer Exterior, Side View, on page 8](#)).

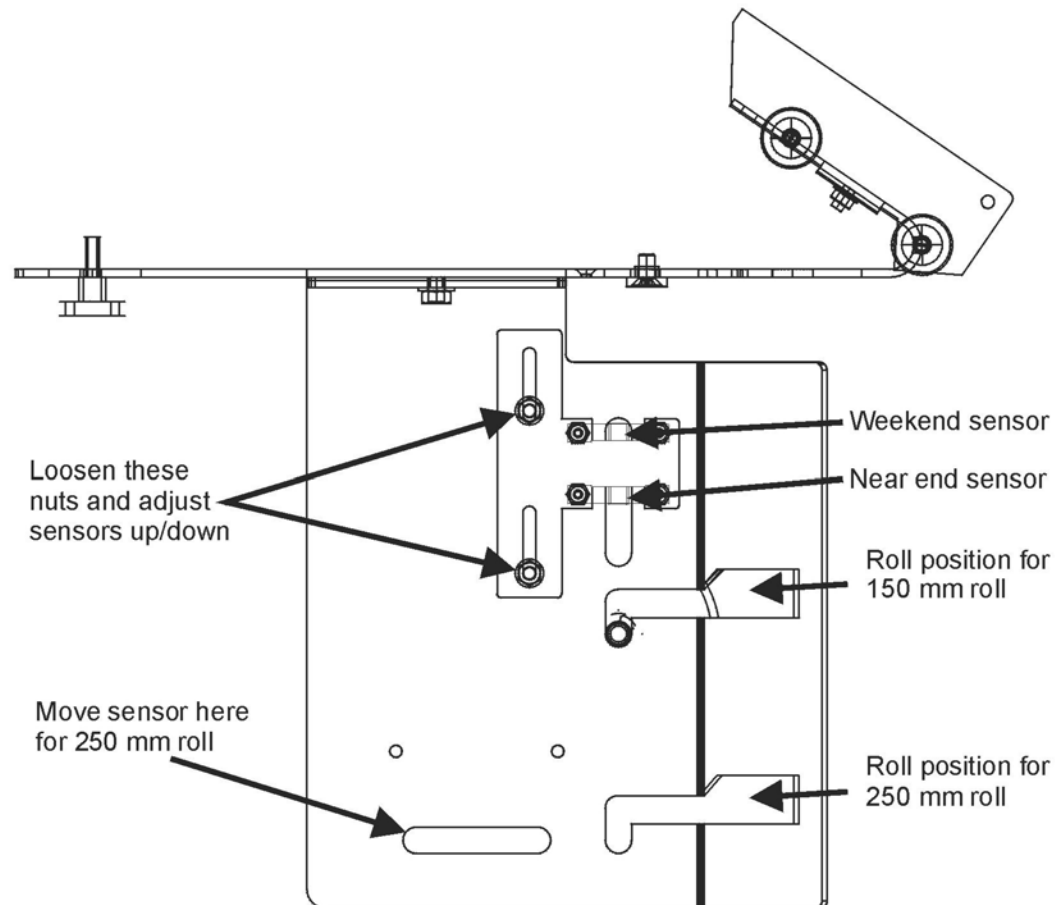
For A4-paper	Pull the wings together as much as possible, and then tighten the screws.
For Letter paper	Push the wings apart as much as possible, and then tighten the screws.

Paper Level Sensors

The printer has inputs for two paper level sensors.

Sensor status is reported to the host computer when it asks the printer for status. If you want the indicator on the printer to flash to show paper level sensor status, you must enable signaling using parameter No. 52, see *Default Parameter Settings* on page 73.

Figure 10 • Sensors on Large Roll Holder



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

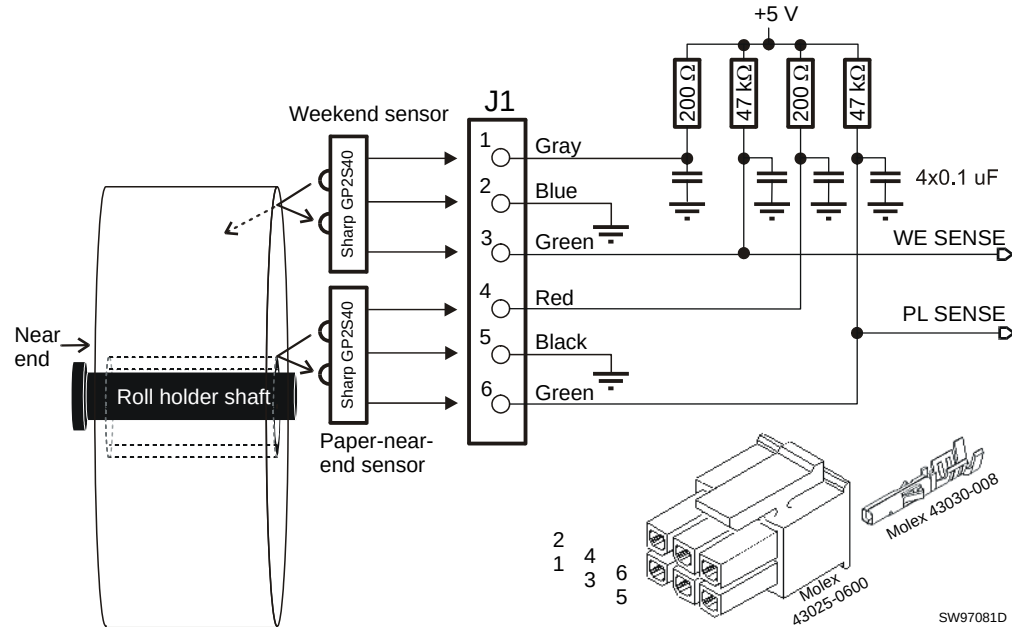
The weekend sensor should alert when the remaining paper does not last over a weekend. A reason to use this sensor is that it is more expensive to get a service technician out on a weekend or holiday, than it is to replace the paper before it is totally empty.

The Zebra 150 mm paper roll holder can be equipped with one paper-near-end sensor, while the larger paper holders have both paper-near-end and weekend sensors.

When installing the Zebra paper holder just connect the cable from the roll holder to connector J1 at the back of the printer. See *Printer Exterior, Rear View* on page 9.

If you use custom designed paper holders, connect the sensors according to Figure 11.

Figure 11 • Paper-near-end Sensor Connection



Installing a Printer Driver

A printer driver for Microsoft Windows™ is available on the Zebra web site <http://www.zebra.com>. Please follow the installation instructions that accompany the drivers and refer to the Kiosk Driver Reference Guide, Part Number P1006873-001, available on www.zebra.com for detailed driver information.



Notes • _____

Operation

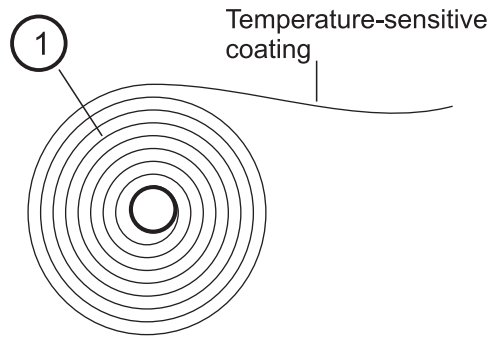


Installing a Paper Roll

Preparations

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

Figure 12 • Paper Roll Orientation

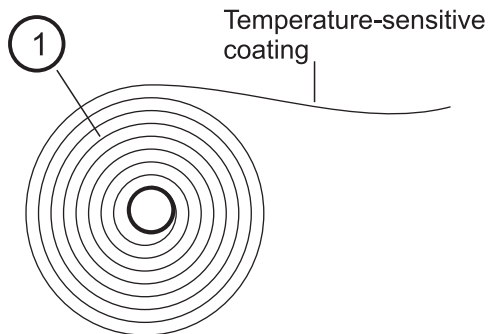


2. Tear off approximately 0.5 m from the new paper roll.



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 printhead damage.

Figure 13 • Tear Off 0.5 m from the New Paper Roll



Using Auto Load

1. Make sure the printer is turned ON.
2. Make sure the front edge of the paper is straight.
3. Enter the paper between the guide wings and feed it straight into the printer.
4. The platen should grip the paper, feed one form length, cut and eject, and set the printer online.

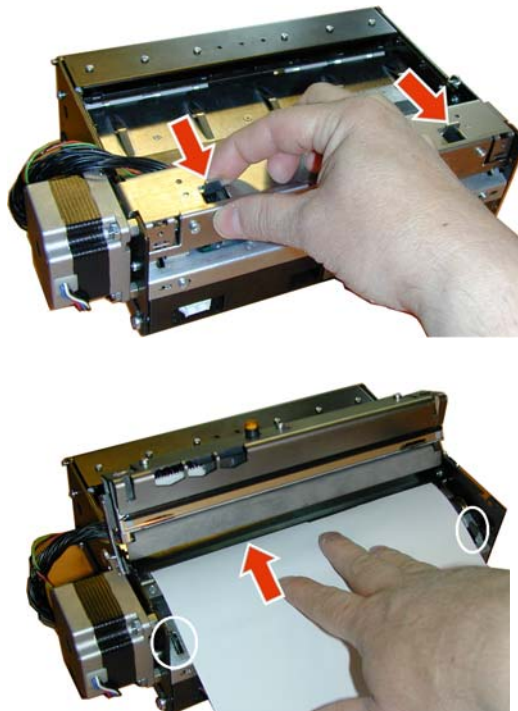


Note • Autoloading works if the printer is on, the head is down and locked, and the Paper Out flashing sequence is showing on the status indicator. If you see that the paper does not pull straight, press the Feed button to stop the loading, then straighten the paper, and press the button again to commence.

Using Manual Load

1. Open the printhead by pulling the two release levers back and tilt up the printhead.

Figure 14 • Manual load of new paper



2. Position the paper on the shelf so that it passes the rubber platen roller.
3. Close the printhead. Remember to push the printhead release levers forward. Note that the paper must be between the guides (circled in the above picture), and under the black plate (arrow).

4. Press the Feed button and the paper will feed, cut and eject a printout, and then automatically go online.

Clearing Paper Jams

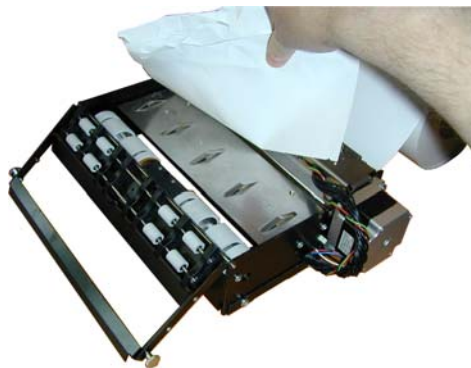
Should a paper jam occur, follow the procedure below:

1. Open the presenter top plate by loosening the two thumbscrews, and lifting up the plate.
2. Tear off the jamming paper against the fixed cutter blade, remove all jammed paper, and make sure the paper path is clear.
3. Close the presenter top, and press it down while tightening the screws.

Figure 15 • Loosen both thumbscrews and flip open the presenter top.



Figure 16 • Tear off the jamming paper against the fixed cutter blade.



Self-test Printout and Other Power ON Modes

1. Remove power from the printer.
If your printer has a power switch, turn the power off. If it does not, remove power to the printer.
2. Hold the feed-forward button depressed while powering ON the printer. Keep the button depressed until the presenter motor buzzes.

This produces a printout showing the firmware program version and date, control board revision number and serial number, name of loaded fonts and logotypes, parameter settings, and the set printhead burn-time.

3. Each successive press of the button will produce a test printout.
4. To exit self-test mode, switch the printer OFF and ON, or send a reset command.



Note • You can also print a self-test printout by sending the command <ESC>P<0> to the printer.

Power ON Modes

Normally the printer is immediately ready for use when you switch it ON. You can enable several test and maintenance functions by giving simulating sensor signals while switching ON the power.

Print Mode	Feed button	Paper	Printhead
Normal	Released	Don't care	Don't care
Self-test printout	Pressed	Loaded	Down



Important • For printers without head up sensor, modes requiring printhead-up are not supported.



Notes • _____

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