

Model 8925 Portable Printer

Operation and Service Manual

*1980072, Revision D
November 2002*

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Service Policy

Knowing that inoperative or defective instruments are as detrimental to TSI as they are to our customers, our service policy is designed to give prompt attention to any problems. If any malfunction is discovered, please contact your nearest sales office or representative, or call TSI's Customer Service department at (800) 874-2811 (USA) and (001 651) 490-2811 :(International).

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Chapter 1

Setup

This chapter guides you through unpacking and identifying the parts of your portable printer. See Chapter 2 for a detailed description of how to operate the printer.

Unpacking

Carefully unpack the printer and accessories from the shipping container. Check the individual parts against the list of components in Table 1; if any parts are missing or damaged, notify TSI immediately.

TABLE 1: List of components

Qty.	Item	Part No.
1	Portable Printer	8925
1	AC Adapter/Charger 120 VAC / 60 Hz or 220 VAC / 50 Hz	2613049 2613048
5	Rolls of thermal paper	2608011
1	Interface cable to instrument	8926
1	Operation and Service Manual	1980072

Parts Identification

Power Switch

There are three positions for this switch: OFF, ON, and CHARGE/AC.

1. Keep the unit switched OFF when not in use.
2. When set to ON, power will be supplied from the internal rechargeable battery.
3. Switch to the CHARGE/AC position when charging the internal battery. Also use this position to operate the printer on power supplied through the AC Adapter/Charger.

Indicator Lights

There are two indicator lights visible on the front of the printer: POWER and BATT.LOW.

1. The POWER indicator lights when power is switched on.
2. The BATT.LOW indicator lights when the internal battery charge becomes low. This indicator flashes when a paper jam occurs.

DIP Switch Setting

The DIP switch cover may be opened to examine the settings of the six DIP switches. The switches will be set at TSI for proper operation with the TSI instruments. Switches 1, 2, and 4 should be down (on) and switches 3, 5, and 6 should be up (off).

Chapter 2

Portable Printer Operation

This chapter explains how to operate the portable printer.

Connecting the AC Adapter/Charger

The AC Adapter/Charger provided with the printer is used for charging the internal battery in the printer and for operating the printer. In order to connect the AC Adapter/Charger to the printer, follow these steps.

1. Set the POWER switch on the printer to CHARGE/AC.
2. Insert the printer end of the AC Adapter/Charger into the printer's power supply jack.
3. Plug the AC Adapter/Charger into an appropriate power outlet.

<p>CAUTION: To prevent shorting, do not touch the tip of the DC plug.</p>

When removing the AC Adapter/Charger, set the POWER switch to OFF and unplug the AC Adapter/Charger and then the DC plug.

Charging the Battery

The printer contains an internal rechargeable battery. Because the battery charge is low at the time of purchase, you will need to charge the battery before use. To charge the battery, follow these steps:

1. Set the POWER switch to CHARGE/AC.
2. Connect the AC Adapter/Charger as explained in the previous section. Allow the printer to charge for 15 hours.
3. When charging is over, set the POWER switch to OFF.

Always observe the following to minimize deterioration of battery performance.

- Do **not** charge continuously for over 24 hours.
- Charge within the temperature range of 40°F to 104°F (5°C to 40°C).

CAUTION: DO NOT run the printer with the switch in the CHARGE/AC position if the battery is sufficiently charged to run the printer. It is important to allow the battery to discharge fully until the low battery indicator comes on before charging again.

There are two reasons for this precaution. The first is that leaving the printer switch in the CHARGE/AC position may over-charge the battery if it does not need charging. The second reason is that NiCd batteries have a tendency to develop a memory if they are not allowed to fully discharge before being charged again. Both of these conditions will result in poor battery life.

If the battery becomes discharged while printing, the BATT.LOW indicator will light. It is then time to recharge the battery. To continue printing with a discharged battery, it is necessary to connect the AC Adapter/Charger and set the POWER switch on the printer to CHARGE/AC.

Installing Paper

Before installing paper into the printer, it is necessary to open the paper holder cover. To open, place your thumb on the paper holder cover and pull up and back.

To install paper into the printer, follow these steps:

1. Turn the POWER switch to ON.
2. Cut the end of the paper straight and square.
3. Open the paper holder cover.
4. Insert the front edge of the paper into the insertion slot.
5. Press the PAPER FEED switch to advance the paper. Keep the PAPER FEED switch depressed until the end of the paper comes out of the paper cutter.

A red line appears along the edge of the paper when the remaining supply of paper becomes low.

When handling the thermal paper follow these steps:

- Store in a dark place that is cool and dry.
- Do **not** rub with a hard object.
- Do **not** store near organic solvents.

Test Printing

A test printing allows you to confirm that the printer is operating correctly and that the DIP switches are set correctly. When you perform a test printing, the printer will automatically print several lines of characters. The final six lines indicate the DIP switch settings. Remember, for proper operation with TSI instruments, DIP switched 1, 2, and 4 should be ON and switches 3, 5, and 6 should be OFF.

To execute a test printing, follow these steps:

1. Make sure paper is installed in the printer.
2. Set the POWER switch to OFF.
3. Set the POWER switch to ON while pressing the PAPER FEED switch at the same time.
4. Release the PAPER FEED switch when printing starts.

Do **not** switch the printer off during a test printing. The printer will stop automatically after printing is over.

Connecting the Printer to a TSI Instrument

An interface cable has been provided to connect the printer to a TSI instrument. To connect the printer, follow these steps:

1. Remove the plastic cover from the serial input connector on the printer (if present).
2. Plug the printer end of the interface cable into the 9-pin serial input connector on the printer.
3. Connect the other end of the interface cable into the RS232 port of the host instrument.

Operating with a TSI instrument

Whenever you operate the printer with a TSI instrument, always switch on the host instrument *before* switching on the printer.

If you switch on the printer first, the printer may print unreadable characters or a series of question marks when you try to print data from the instrument. If this happens, simply switch the printer OFF and then ON again. There is no need to switch off the host instrument.

Chapter 3

Maintenance

Some important points to remember when operating the Model 8925 Portable Printer are listed below.

- Use the AC Adapter/Charger provided and connect to an appropriate power source. Do **not** use an AC adapter other than the one provided.
- Do **not** drop the printer or expose it to excessive shock.
- Avoid places subject to high or low temperatures (see specifications).
- Do **not** expose printer to long periods of direct sunlight.
- Avoid extensive use in areas where excessive dust, corrosive gases, or solvent vapors are being generated.
- Do **not** switch off the power when the printer is printing.

Never attempt to dismantle or repair the printer yourself.

Chapter 4

Troubleshooting

Table 2 lists the symptoms, possible causes, and recommended solutions for common problems encountered with the portable printer. If your symptom is not listed, or if none of the solutions solves your problem, please contact TSI.

Table 2: Troubleshooting the portable printer

Symptom	Possible Cause	Solution
Printer does not print	Interface cable to host instrument not connected well	Check connections and reconnect if loose
	Battery discharged	Charge battery
	Incorrect DIP switch settings	Check settings (see section in Ch. 1)
Printing garbled characters or ? marks	Host instrument was switched on after printer	Switch off printer then on again.
	Incorrect DIP switch settings	Check settings (see section in Ch. 1)

Symptom	Possible Cause	Solution
BATT.LOW indicator blinking	Data from host instrument not understood by printer	Switch off printer and then switch on again
	Paper jam	Check paper, remove and reinstall if needed
Battery not holding charge	Battery is dead	Contact TSI to order a battery replacement

Appendix A

Specifications

Specifications are subject to change without notice.

Printing method: Thermal dot method

Character mode:

Character configuration: 7 X 5 dots matrix

Printing digits: 27 digits/line (normal printing)

Bit image mode:

Total number of dots: 8 X 166 dotsline

Printing width: 1.8 inches (46 mm)

Printing speed: About 0.8 lines/second

External dimensions (excluding projections):

5.3 in. x 4.0 in. x 1.4 in.

(135 mm x 100 mm x 35 mm)

Weight: Approximately 14 oz. (400 g)

Life: MCBF 500,000 lines

Operating conditions:

Temperature range: 0°C - 40°C

Humidity range: 30% RH - 80% RH

Thermal paper (Model 8924 Package of 20 rolls):

Paper width:	2.28 in. (58 mm)
Roll diameter:	1 in. (25 mm)
Roll length:	Approximately 22 ft. (7 m)

AC Adapter, 120 VAC/60 Hz (P/N 2613048):

Input:	AC 120V, 60 Hz
Output:	DC 6 V, 2000 mA
External dimensions (excluding projections)	2.4 in. x 3.3 in. x 1.9 in. (60 mm x 82 mm x 49 mm)
Weight:	Approximately 18 oz. (510 g)

AC Adapter, 220 VAC/50 Hz (P/N 2613049):

Input:	AC 220 V, 50 Hz
Output:	DC 6 V, 1600 mA
External dimensions (excluding projections)	2.7 in. x 3.9 in. x 2.4 in. (69 mm x 100 mm x 60.5 mm)
Weight:	Approximately 26 oz. (740 g)

Appendix B

Serial Interface Information

PIN signal	Signal name	Direction	Function
1, 2	NC	-	-
3	DATA	INPUT	DATA
4	NC	-	-
5	GND	-	GROUND
6, 7	NC	-	-
8	BUSY	OUTPUT	HAND SHAKE
9	NC	-	-

Appendix C

General DIP Switch Information

Switch number	ON	OFF
SW 1	8 data bits*	7 data bits
SW2	disable parity bit*	enable parity bit
SW3	odd parity	even parity*
SW4, 5, 6	baud rate (see below)	

* Factory settings

Baud Rate	SW 4	SW 5	SW 6
150 bps	ON	ON	ON
300 bps	ON	ON	OFF
600 bps	ON	OFF	ON
1200 bps*	ON	OFF	OFF
2400 bps	OFF	ON	ON
4800 bps	OFF	ON	OFF
9600 bps	OFF	OFF	ON
19200 bps	OFF	OFF	OFF

* Factory settings

Appendix D

FCC Statement

“This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer’s instruction, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference in residential installation. However, there is no guarantee that interference to radio or television receptions, which can be determined by turning the equipment off and on, you are encouraged to try correcting the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate the computer with respect to the receiver
- move the computer away from the receiver

.... plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, consult the dealer or an experienced radio/television technician for additional suggestions. You may find the following booklet prepared by the Federal Communications Commission helpful: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.”

Note: *The use of a non-shielded interference cable with the reference device is prohibited.*



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