8857

Strip Printer

User's Guide

16189300A
6/01.01

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THANK YOU FOR YOUR PURCHASE!

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according to ISO/IEC Guide 22 and EN 45014

Manufacturer :SEIKO EPSON CORPORATION

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Japan

Representative:EPSON EUROPE B.V.
Address :Prof.J.H.Bavincklaan 5
1183 AT Amstelveen,
The Netherlands

Declares that the Product:
Product Name : Printer
Type Name : M119D

Conform to the following Directives and Norms

Directive 89/336/EEC
EN 55022 (1986 and 1994)class B
EN 50082-1(1992)
IEC 801-2 (1991)
IEC 801-3 (1984)
IEC 801-4 (1991)

Directive 90/384/EEC
EN45501:(1992)

June 1996,

M Hamamoto
President of EPSON Europe B.V.

Safety Standards, Warnings, and Compliance

EMC and Safety Standards

Printer

Product Name: METTLER TOLEDO 8857 (TM-U210D)

Model Name: M119D

The following standards are applied only to the printers that are so labeled. (EMC is tested using the packaged AC adapter and the EPSON PS-170 power supply.)

Europe:	CE Marking Safety: EN60950
North America:	EMI: FCC/ICES-003 Class A Safety: UL 1950/CSA C22.2 No. 950
Japan:	EMI: VCCI Class A
Oceania:	EMC: AS/NZS 3548
Taiwan:	EMI: Class B

AC Adapter

Product Name: PS170

Model Name: M122A

The following standards are applied only to the AC adapters that are so labeled. (The printer and the AC adapter together are applied to the EMC standards.)

Europe:	CE Marking Safety: EN60950
North America:	Safety: UL 1950/CSA C22.2 No. 950
Japan:	Safety: Electrical Appliance and Material Control Law of Japan
Oceania:	Safety: AS 3260

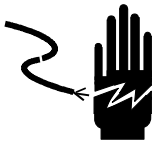
WARNING!

The connection of a non-shielded printer interface cable to this printer will invalidate the EMC standards of this device.

CE Marking

The printer conforms to the following Directives and Norms
Directive 89/336/EEC
EN 55022 Class B
EN 50082-1
IEC 801-2
IEC 801-3
IEC 801-4

Directive 90/384/EEC EN45501



⚠ WARNING

PERMIT ONLY QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS, AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM.

- Read this manual before installing or servicing this equipment. Save this manual for future reference.
- Follow these instructions carefully.
- Do not allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.
- Always disconnect this equipment from the power source before cleaning or performing maintenance.

Call METTLER TOLEDO for parts, information, and service.

FCC Compliance Statement

US Installations

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his or her own expense.

Canadian Installations

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Information about METTLER TOLEDO Technical Training can be obtained by writing, calling, or faxing:

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Columbus, Ohio 43240 USA
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Fax: (614) 438-4958
www.mt.com

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1 Introduction

Overview

The METTLER TOLEDO 8857 Strip Printer is an RS232 dot matrix impact printer, which is used for printing weight or data.

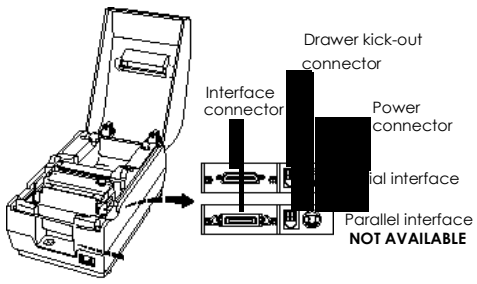


Figure 1: Exploded View

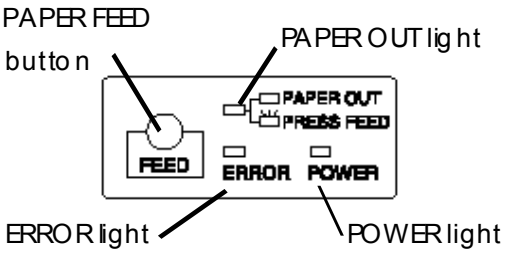
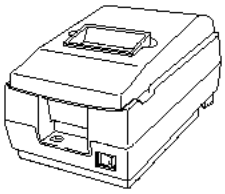


Figure 2: Control Panel

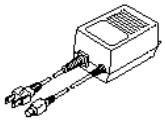
Setting Up the Printer

Unpacking

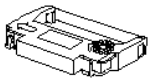
Make sure the following parts are present. If any parts are missing or damaged, please contact your authorized METTLER TOLEDO representative.



Printer



Power supply



Ribbon cassette

Hexagonal lock screws (2 pcs)
(only for the serial interface)

Roll paper

Power switch cover

Installation

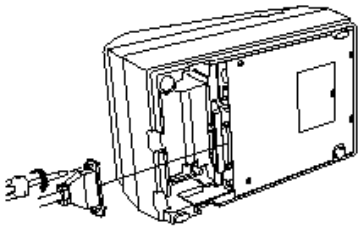
Install the printer on a horizontal surface. Do not expose to water or use in wet environments.

Interfacing

The 8857 printer contains an RS232 serial interface. Default settings for the interface are: 9600 baud, 7 data bits, even parity, and x-on / x-off handshaking. Make sure the host device matches these parameters, or adjust the printer settings using the internal DIP switches.

Cable Connection

Make sure that the printer and the host device are turned off. Then plug the cable into the connector on the printer, as shown here.



NOTE: The 8857 printer comes with inch-type hexagonal lock screws installed. If you plan to use an interface cable that requires millimeter-type lock screws, replace the inch-type screws with the enclosed millimeter-type screws using a hex screwdriver (5 mm). The inch-type screws have one or more lines engraved on the barrel of the screws.

Interface Cable Selection

RS-232 INTERFACE CABLE MATRIX – 8857 STRIP PRINTER				
Device	**Device Connector**	**Required Cable**	**Cable Length**	**Printer Connector**
COUGAR, LYNX, JAGUAR/JAGXTREME, PANTHER, PANTHER/PANTHER PLUS, SPEEDWEIGH/SPEEDWEIGH PLUS, TRIMWEIGH II	Terminal block	Factory number 0900-0309-000 Part number 14656000A	15 ft	DB25 female TxD: Pin 2 RxD: Pin 3 Ground: Pin 7 Shield: Pin 1 DSR: Pin 6 DTR: Pin 20
BC, SC, HAWK, WILDCAT	DB9 female TxD: Pin 3 RxD: Pin 2 Ground: Pin 5	Factory number 0900-0255-000 Part number 13191100A	6 ft	
SP, SPIDER, VIPER	DB9 female TxD: Pin 2 RxD: Pin 3 Ground: Pin 5	Factory number 0900-0313-000 Part number 14861700A	15 ft	
8582, 9360, PUMA	DB25 TxD: Pin 2 RxD: Pin 3 Ground: Pin 7	Factory number 0900-0243-000 Part number 13230500A	6 ft	
PR, SR, SG	LocalCAN	Part number 229050	6 ft	
PG, PB, SB	DB9 female TxD: Pin 2 RxD: Pin 3 Ground: Pin 5	Part number 1110-1052	3 ft	
ID Terminals	DIN	Part number 503755	10 ft	
SMx using 21200013 adapter	MiniMettler	Part number 33640	6 ft	

Connecting the Power Supply

- The 8857 printer uses an external universal power supply.

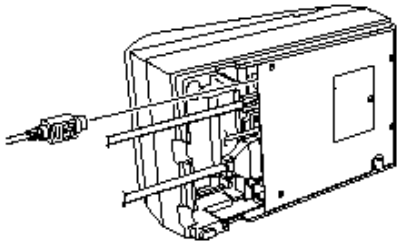
⚠ WARNING

USING AN INCORRECT POWER SUPPLY MAY CAUSE FIRE OR ELECTRICAL SHOCK.

⚠ CAUTION

WHEN CONNECTING OR DISCONNECTING THE POWER SUPPLY FROM THE PRINTER, MAKE SURE THAT THE POWER SUPPLY IS NOT PLUGGED INTO AN ELECTRICAL OUTLET; OTHERWISE YOU MAY DAMAGE THE POWER SUPPLY OR THE PRINTER.

- Make sure that the printer and power supply are turned off.
- Plug the power supply's cable into the printer's connector as shown below. Note that the side of the connector faces down.



- Plug the power supply's cord into an outlet.

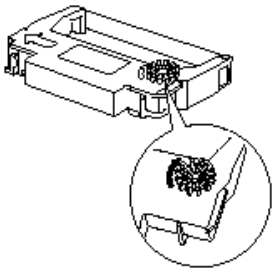
Installing the Ribbon Cassette

⚠ CAUTION

NEVER TURN THE RIBBON CASSETTE'S FEED KNOB IN THE OPPOSITE DIRECTION OF THE ARROW MARKED ON THE CASSETTE; OTHERWISE THE RIBBON MAY BE DAMAGED. BE SURE THE PRINTER IS NOT RECEIVING DATA WHEN YOU REPLACE A RIBBON CASSETTE; OTHERWISE DATA MAY BE LOST.

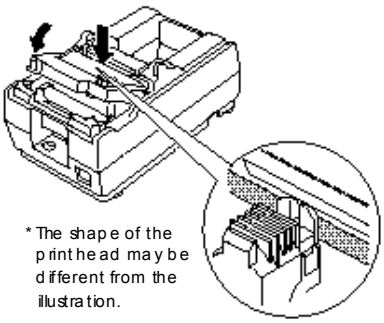
NOTE: The black-ink ribbon cartridge for the 8857 printer is METTLER TOLEDO Part Number 15948900A (EPSON ERC-38B).

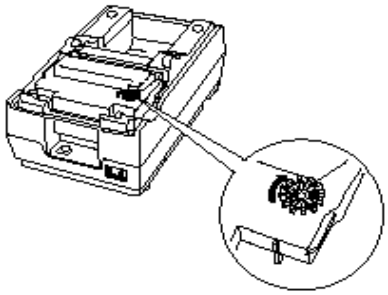
- Open the printer cover.
- Turn the ribbon cassette's knob in the direction of the arrow, to take up any slack in the ribbon. Then lift up the left side with your fingers and remove it.



- Insert the ribbon in the position shown in the illustration on the next page and push the ribbon cassette until it clicks.

NOTE: Make sure that the ribbon is installed between the print head and the platen without wrinkles or creases.





- Turn the ribbon cassette's knob 5 or 6 times in the direction of the arrow again, to take up any slack in the ribbon.

Installing the Paper Roll

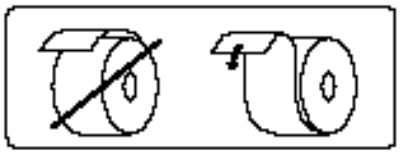
NOTE: Be sure to use roll paper that meets the specifications. Do not use paper rolls which have the paper glued to the core because the printer cannot detect the paper end correctly.

The illustrations used in this section are for the single-color type printer. However, the procedure is the same for the two-color type printer.

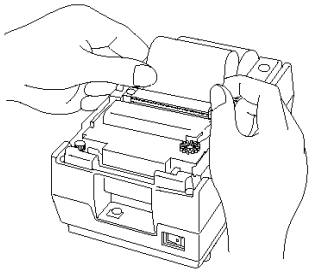
- Using scissors, cut the leading edge of the paper roll as shown below.

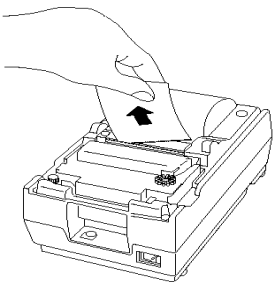
- Turn on the printer and open the printer cover.
- Insert the paper roll.

NOTE: Be sure to note the correct direction that the paper comes off the roll as shown below.



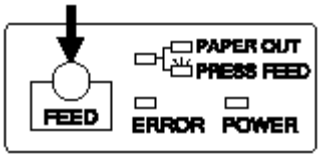
- Hold both edges of the paper and insert it straight into the paper slot. The printer feeds the paper automatically.





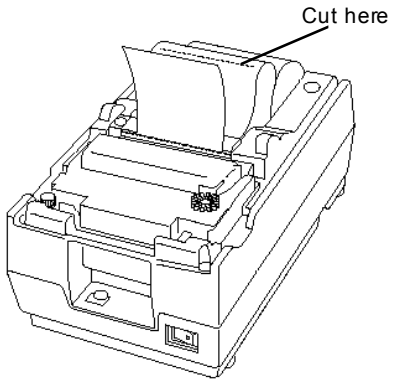
- Cut the paper, then close the cover.

- When the PAPER OUT light blinks, press the PAPER FEED button to set the printer on line.



Removing the Paper Roll

- Open the printer cover.
- Pull up the paper and cut the paper at the dotted line shown in the illustration below.



- Remove the paper roll from the printer.
- Remove the remaining paper.

NOTE: Do not pull the remaining paper in the opposite direction of paper feeding.

Paper – Out Sensors

The 8857 incorporates two paper sensors:

- A near – end sensor will detect when the printer is low on paper. When the PAPER OUT LED on the front panel is illuminated, change the paper roll.
- A paper – out sensor will detect when the printer is out of paper. The printer will stop, buffer incoming data, and illuminate the PAPER OUT **AND** ERROR LED's. Insert a new paper roll and press the FEED button to resume printing.

To prevent data loss, change paper immediately!

Running the Self-Test

Any time that you want to check the performance of your printer, you can run the self-test described below. This shows whether your printer is working correctly. It is independent of any other equipment or software.

NOTE: Be sure to install the ribbon cassette and the paper roll before you run the self-test.

- To perform the self-test, hold down the PAPER FEED button while you turn on the printer with the power switch.
- The printer prints the current printer settings and then the PAPER OUT light blinks to indicate that the printer is in the test printing standby state.
- Press the PAPER FEED button to start the second part of the test, in which the printer prints a pattern using the built-in character set.
- After the printer completes a certain number of lines, it prints the following:

*** completed ***

- The printer will then revert to the normal mode.

NOTE: If you want to pause the self-test manually, press the PAPER FEED button. Press the PAPER FEED button again to continue the self-test.

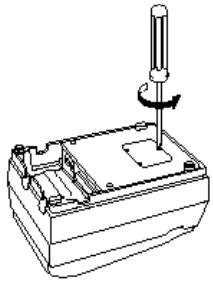
Setting the DIP Switches

⚠ CAUTION

TURN OFF THE PRINTER BEFORE REMOVING THE DIP SWITCH COVER TO PREVENT AN ELECTRICAL SHORT, WHICH CAN DAMAGE THE PRINTER.

NOTE: You can change your serial interface and print column settings by changing the DIP switch settings.

- Make sure that the printer is off.
- Turn the printer over and remove the DIP switch access cover, as shown below.



There are two sets of switches. Notice that ON is marked on each set of switches. Use tweezers or another narrow tool to move the switches.

Use the following tables to set the DIP switches. Numbers starting with 1 are in the first set, and numbers starting with 2 are in the second.

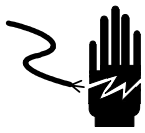
Serial interface DIP-Switch Functions
Default settings in **bold**

DIP Switch Set 1

Switch	Function	ON	**OFF**
1-1	Data reception error	Ignored	**Prints"?"**
1-2	Receive buffer capacity	40 bytes	**Approx. 1K bytes**
1-3	Handshaking	**XON/XOFF**	DTR/DSR
1-4	Word length	**7 bits**	8 bits
1-5	Parity check	**Yes**	No
1-6	Parity selection	**Even**	Odd
1-7	Baud rate	4800 BPS	**9600 BPS**
1-8	Busy condition	Sets the printer to go BUSY when the receive buffer is full	**Sets the printer to go BUSY when it is offline or the receive buffer is full**

DIP Switch Set 2

Switch	Function	ON	OFF
2-1	Print column selection 7 x 9 font/9 x 9 font	42/35	**40/33**
2-2	Internal use. Setting must not be changed. (Fixed to Off).		
2-3	Internal use. Setting must not be changed. (Fixed to Off).		
2-4	Undefined.		
2-5	Internal use. Setting must not be changed. (Fixed to Off).		
2-6	Internal use. Setting must not be changed. (Fixed to Off).		
2-7	I/F pin 6 reset signal	Enabled	**Disabled**
2-8	I/F pin 25 reset signal	Enabled	**Disabled**



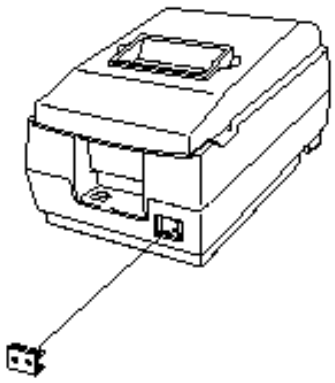
⚠ CAUTION

DO NOT CHANGE THE SETTINGS OF SWITCHES 2-2, 2-3, 2-5, AND 2-6. CHANGING THESE SETTINGS MAY CAUSE INFERIOR PRINT QUALITY.

- Replace the DIP switch cover and secure it with the screw.

Using the Power Switch Cover

You can use the power switch cover provided to protect the switch from accidental or improper operation. Attach the cover as shown in the illustration below. You can turn the power on or off with the switch cover attached by inserting a pointed object (like a ball point pen) through either of the two small holes on the switch cover.



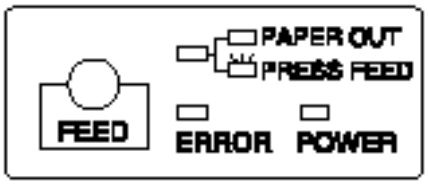
⚠ WARNING

IF AN ACCIDENT OCCURS WHEN THE POWER SWITCH COVER IS ATTACHED, UNPLUG THE POWER SUPPLY CORD FROM THE OUTLET IMMEDIATELY.

2 Using the Printer

Operations

You can feed paper with the button on the control panel. The indicator lights monitor the printer's status.



Power Switch

The power switch on the front of the printer turns the printer on and off.

Feed Button

Press the PAPER FEED button once to advance paper one line. Hold down the PAPER FEED button to feed the paper continuously.

The PAPER FEED button is also used while replacing the paper roll. The PAPER OUT light blinks and printer enters the on-line recovery standby state after paper loading. When the PAPER OUT light blinks, press the PAPER FEED button to set the printer on line.

Indicator Lights

POWER (Green). The POWER light indicates when the printer power is on.

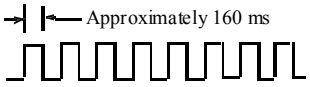
PAPER OUT (Red). The printer is equipped with a near-end detector. The light is on when the paper roll is at the end or near the end. The light blinks in the following cases.

- In the self-test standby mode
- In the on-line recovery standby state after semi-auto loading

When it blinks, press the PAPER FEED button.

ERROR (Red). This light is on when the printer is off line. It blinks to indicate an error condition.

The blinking pattern shown below indicates that the temperature of the print head is too high. The printer recovers automatically and resumes printing when the head cools.



If the printer stops working and the ERROR light is blinking, turn the printer off, check for jammed paper, and remove it by following the instructions on page 3-3. Then turn the printer back on.

If the printer still does not work, unplug the power supply cord from the outlet immediately. Contact a qualified service person.

⚠ CAUTION

THE PRINT HEAD BECOMES VERY HOT DURING PRINTING. ALLOW IT TO COOL BEFORE YOU REACH INTO THE PRINTER.

3 Troubleshooting

Control Panel Lights

The lights on the control panel do not come on.

- Make sure that the power supply cables are correctly plugged into the printer, the power unit, and to the power outlet.
- Make sure that power is supplied to the power outlet. If a switch or timer controls the outlet, use another outlet.

Printing Problems

The ERROR light is blinking and the printer does not print.

- Turn off the printer and check for a paper jam. (See paper jam description on 3-2.)
- If there is no paper jam and the printer has been printing for quite a while, the print head may be overheated. If the print head is overheated, the printer will resume printing when the head has cooled (usually within two or three minutes).
- If there is no paper jam and the print head is not overheated, turn off the printer and turn it back on after about 10 seconds. If the printer still does not work, unplug the power supply cord from the outlet immediately. Contact a qualified service person.

The ERROR light is off, but nothing is printed.

- Run the self-test to check that the printer works properly. Refer to the self-test instructions in Chapter 1. If the self-test does not work, contact a qualified service person.
- If the self-test works properly, check the following:

  ✓ Check the connection at both ends of the interface cable between the printer and the host device. Also make sure that this cable meets the specifications for both the printer and the computer.

  ✓ The data transmission settings may be different between the printer and host device. Make sure that the printer's DIP switch settings for data transmission are the same as the host device. The printer's interface settings are printed using the self -test.

- If the printer still does not print, contact a qualified service person.

The printer sounds like it is printing, but nothing is printed.

- The ribbon cassette may not be installed properly. See the instructions in Chapter 1.
- The ribbon may be worn out. Replace the ribbon cassette as described in Chapter 1.

The printout is faint.

- The ribbon may be worn out. Replace the ribbon cassette as described in Chapter 1.

A line of dots is missing in the printout.

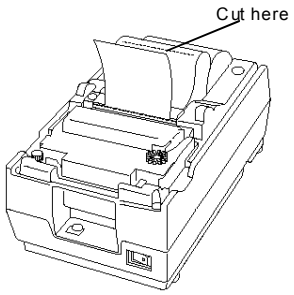
- The print head may be damaged. Stop printing. Contact a qualified service person.

Removing Jammed Paper

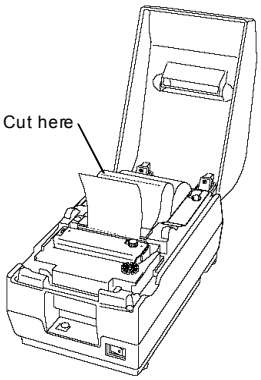
⚠ CAUTION

THE PRINT HEAD BECOMES VERY HOT DURING PRINTING. ALLOW IT TO COOL BEFORE YOU REACH INTO THE PRINTER.

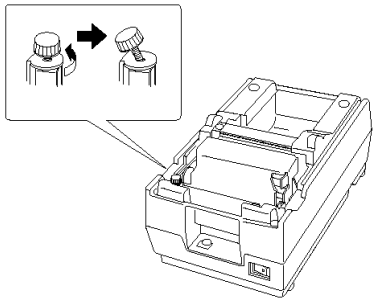
- Open the printer cover.
- Pull up the paper and cut the paper at the dotted line shown in the illustration below.



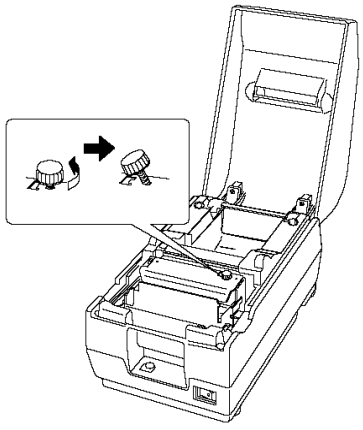
(Single-color type)



- Remove the paper roll from the printer.
- Remove the ribbon cassette.
- Loosen the screw securing the print head cover.
- Turn the screw only until you can tilt it as shown in the illustration.



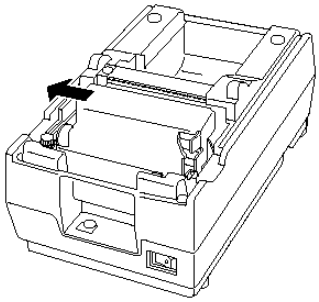
(Single-



(Two-color Type)

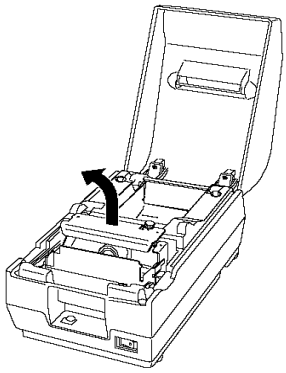
NOTE: Do not remove the screw from the print head cover.

- Slide the print head cover to the left about 5 mm (1/5 inch).



(Single-color Type)

- Lift up the print head cover.



- Remove the jammed paper.

NOTE: Do not pull the jammed paper in the opposite direction of paper feeding.

- Replace the print head cover and secure it with the screw.
- Replace the ribbon cassette and paper roll; then close the printer cover.

Hexadecimal Dump

The hex dump feature allows users to see exactly what data is coming to the printer, and is useful in finding software problems. When the hex dump function is activated, the printer prints all commands and data in hexadecimal format along with a guide section to help you find specific commands.

To use the hex dump feature, follow these steps:

- After you make sure that the printer is off, set DIP switch 1-2 to ON.
- Turn on the printer while you hold down the PAPER FEED button; then release and press the PAPER FEED button quickly.

NOTE: Releasing and pressing the PAPER FEED button should be performed before the printer finishes initializing; otherwise the printer begins the self-test.

When the printer enters the hex dump mode, it prints "Hexadecimal Dump."

Run any software program that sends data to the printer. The printer prints all the codes it receives in a two-column format. The first column contains the hexadecimal codes and the second column gives the ASCII characters that correspond to the codes.

```
                Hexadecimal Dump
1B 21 00  1B 26 02 40 40  : .!. .&.@@
1B 25 01  1B 63 34 00 1B  :  .%. .c4. .
 41 42 43  44 45 46 47 48  : ABCDEFGH
```

- A period (.) is printed for each code that has no ASCII equivalent.
- During the hex dump all commands except DLE EOT and DLE ENQ are disabled.
- When the printing finishes, turn off the printer or reset it to turn off the hex dump mode.
- If you changed the DIP switch 1-2, set it back to OFF.

4 Reference Information

Advanced Commands

COMMANDS AND ESCAPE SEQUENCES			
	Decimal	**Description**	**Value of n**
LF	10	Prints the data in the buffer and feeds one line	
CR	13	Prints the data in the buffer (no line feed)	
ESC SP n	27 32 n	Sets character spacing for the right side of the character to (n x 0.159 mm) (range 0 • n • 255)	Default is 0
ESC a n	27 97 n	Select justification (Must be input at the beginning of a line)	LEFT = 0 CENTER = 1 RIGHT = 2
ESC ! n	27 33 n	Selects special print mode where (range 0 • n • 255)	

Example of commands for special print modes: Emphasized: ESC ! Ctrl H (decimal 8) Double height: ESC ! Cntrl P (decimal 16) Double height / emphasized: ESC ! Cntrl X (decimal 24) Double width: ESC ! Space (decimal 32) Double width / emphasized: ESC ! (decimal 40) Double height / width: ESC ! 0 (decimal 48) Double height / width / emphasized: ESC ! 8 (decimal 56)		
	8	Emphasized
	16	Double height
	24	Double height and emphasized
	32	Double width
	40	Double width and emphasized
	48	Double height and double width
	56	Double height, double width, and emphasized

ESC ! E	27 33 69	De-select special print mode above	Revert to default font
ESC – n	27 45 n	Enable underline mode on or off	OFF: when n = 0 ON: when n = 1
ESC { n	27 123 n	Enable inverted print mode	OFF: when n = 0 ON: when n = 1
ESC 3 n	27 51 n	Set line spacing (range 0 • n • 255)	Default is 24 (1/6 inch)
ESC E n	27 69 n	Enable emphasized mode on or off	OFF: when n = 0 ON: when n = 1

COMMANDS AND ESCAPE SEQUENCES				
	Decimal	**Description**	**Value of n**	
ESC R n	27 82 n	Select international character set	0	USA
			1	France
			2	Germany
			3	UK
			4	Denmark
			5	Sweden
			6	Italy
			7	Spain
			8	Japan
			9	Norway
			13	Korea

Printing Specifications

Printing Method:	Serial impact dot-matrix
Head Wire Configuration:	9-pin serial configuration
Printing Direction:	Bi-directional, logic-seeking
Printing Speed:	Approx. 3.5 LPS (40 columns, 16 CPI) Approx. 6.4 LPS (16 columns, 16 CPI) (excluding data transmission time and processing time)

LPS: Lines per second
CPI: Characters per inch (number of characters per 25.4 mm)

NOTE: When printing exceeds the allowable print duty cycle, the printer automatically stops printing, and the printing speed described above is not guaranteed.

Character Specifications

Number of Characters	Alphanumeric characters: 95 Extended graphics: 128 x 8 pages, International characters: 32
Character Structure:	7 x 9 (the total number of dots in horizontal: 400 in half dot units) 9 x 9 (the total number of dots in horizontal: 400 in half dot units)

Character Sizes, Spacing, and Columns

Character Structure		Character Size W x H (mm)	Character Spacing Dot Space	CPL	CPI
Horiz x Vert	Character				
7 x 9	ANK	1.2 x 3.1	3 half dots	40	16
	Graphics	1.7 x 3.1	0	40	16
9 x 9	ANK	1.6 x 3.1	3 half dots	33	13.3
	Graphics	2.0 x 3.1	0	33	13.3
7 x 9	ANK	1.2 x 3.1	2 half dots	42	17.8
	Graphics	1.6 x 3.1	0	42	17.8
9 x 9	ANK	1.6 x 3.1	2 half dots	35	14.5
	Graphics	1.9 x 3.1	0	35	14.5

CPL:Characters Per Line
CPI : Characters Per Inch (number of characters per 25.4 mm)
LPS : Lines Per Second (number of characters per second)

Notes:

The default is 7 x 9 with 3-dot spacing in half dot units.
7 x 9 with 2-dot spacing in half dot units is available by setting DIP switch 2-1 ON.

Paper Specifications

Paper Feed: Friction feed

Paper Feed Pitch: Default 4.23 mm {1/6"}

Paper Feed Speed: Approx. 105.92 mm/second {approx. 4.17 inches/second (25 LPS) (continuous feeding)}

Paper Size and Weight: **Normal paper (single-ply)**

Size: Width 76 mm ± 0.5 mm {3.0" ± 0.02"}

Max. Outside Diameter: 83 mm {3.27"}

Thickness: 0.06 to 0.085 mm {.0024 to .0033"}

LPS : Lines per second (number of characters per second)

Paper Size and Weight: **Multi-ply paper**

Maximum 1 original + 2 copies

Size: Width 76 mm ± 0.5 mm {3.0" ± 0.02"}

Max. Outside Diameter: 83 mm {3.27"}

Thickness: 0.05 to 0.08 mm {.0020 to .0031"}

Ambient Temperature and Number of Copies

Number of Copies	Ambient Temperature
Original + 2 copies	10° to 40°C {50° to 104°F}
Original + 1 copy	5° to 50°C {41° to 122°F}

Electrical Specifications

Specifications		
PS-170 autosensing universal power supply	Input voltage: 100-240 VAC ± 10 50-60 Hz, 1.3 A	Output voltage: +24 VDC, 2A
Printer current consumption	Operating: 43W	Standby: 6W

Reliability

Life: Mechanism: 7.5 million lines

Print head: 150 million characters (using an average of 2 dots/wire per character)

End of Life is defined as the point at which the printer reaches the beginning of the Wearout Period.

MTBF: 180,000 hours

Failure is defined as Random Failure occurring at the time of the Random Failure Period.

MCBF: 18,000,000 lines

This is an average failure interval based on failures relating to wearout and random failures up to the life of 7.5 million lines.

Environmental Conditions

Temperature

0 to 50° C {32 to 122° F}

–10 to 50° C {14 to 122° F}
(except for paper and ribbon)

Humidity

10 to 90% RH (except for paper and ribbon)

Replacement Parts

- Repair of the 8857 Printer is limited to replacement of major assemblies. Listed below are the available parts for the 8857.
- Contact METTLER TOLEDO or an authorized METTLER TOLEDO Distributor for parts and service.

Description	Part Number
Power supply (universal)(PS170)	083503020
Printer mechanism complete	083504020
Print head	083505020
Keypad switch with overlay	083506020
Main PCB	083507020
Ribbon cartridge	16107700A Epson part # ERC-38B (black)
Paper (fifty rolls) single ply	140992050
Paper (one roll) single ply	14099200A
Paper (one roll) two ply	082294020
Paper (one roll) three ply	KN000000J94

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