

TTP-243 Series/243E Series/ 342 Series

**THERMAL TRANSFER / DIRECT THERMAL BAR
CODE PRINTER**

**USER'S
MANUAL**

CONTENTS

1. PRODUCT INTRODUCTION	2
1.1 Compliances.....	2
2. GETTING STARTED.....	3
2.1 Unpacking and Inspection	3
2.2 Equipment Checklist.....	3
2.3 Printer Parts	4
2.4 External Label Roll Mount	7
2.5 Buttons and Indicators.....	8
3. SET UP.....	9
3.1 Setting Up the Printer	9
3.2 Loading Label and Tag Stock.....	9
3.3 Self-Peeling Function	12
3.4 Ribbon Loading Instructions	15
3.5 Install External Label Roll Mount	18
3.6 Install Memory Module (Option)	19
3.7 Self Test	20
3.8 Dump Mode.....	22
4. USING TTP-243 SERIES/243E SERIES/342 SERIES	23
4.1 Power-on Utilities	23
4.1.1 Self Test Utility	23
4.1.2 Gap Sensor Calibration Utility	23
4.1.3 Printer Initialization	24
4.2 Troubleshooting Guide	25

1. PRODUCT INTRODUCTION

Thank you very much for purchasing TSC TTP-243 series/243E series/342 series bar code printer. The attractive desktop printer delivers superior performance at an economical price. Both powerful and easy-to-use, this printer is your best choice among desktop direct thermal and thermal transfer label printers.

Printer offers both thermal transfer and direct thermal printing at selectable speeds of 1.5, 2.0 and 3.0 inches per second for TTP-243 series/243E series and 1.0, 1.5 and 2.0 inch per second for TTP-342 series. It can accept a wide range of media, including roll feed, die-cut, and fan-fold labels or tags for both thermal transfer and direct thermal printing. All of the most frequently used bar code formats are available. Fonts and bar codes can be printed in any one of four directions. This printer provides a choice of five different sizes of alphanumeric fonts. By using font multiplication, an even greater range of sizes is possible. Smooth fonts can be downloaded from the user-friendly Windows labeling design software. In addition, This printer is capable of independently executing BASIC programming functions, including arithmetic, logical operation, loop, flow-control and file management, among others. This programming capability provides the greatest efficiency in label printing. The status of printer and error messages may either be printed out or viewed on a monitor by means of the RS-232 connection.

1.1 Compliances

CE, FCC, TÜV-GS, BSMI, CCC

2. GETTING STARTED

2.1 Unpacking and Inspection

The printer has been specially packaged to withstand damage in the shipping process. However, for fear that unexpected damage might occur, upon receiving the bar code printer, carefully inspect the package and the device. In case of evident damage, contact the carrier directly to specify the nature and extent of the damage. Please retain the packaging materials in case you need to reship the printer.

2.2 Equipment Checklist

- One bar code printer unit
- One sample roll of plain label stock (Not available for 243E series printer)
- One sample roll of wax-resin ribbon (Not available for 243E series printer)
- One paper core for ribbon rewind spindle
- Two ribbon supply/rewind spindle
- One round label supply roll spindle
- One label spindle with two fixing tabs
- One external label roll mount/spindle (Not available for 243E series printer)
- One power supply
- One power cord
- One Centronics interface cable (Not available for 243E series printer)
- One Quick installation guide
- One Windows labeling software/Windows driver CD disk

Separately purchased items may also be included. These additional items may include:

- Label
- Ribbon
- Memory module
- Cutter (Not available for 243E series printer)
- Peel off module (Not available for 243E series printer)
- Portable LCD keyboard

If any parts are missing, please contact the Customer Service Department of your purchased reseller or distributor.

2.3 Printer Parts

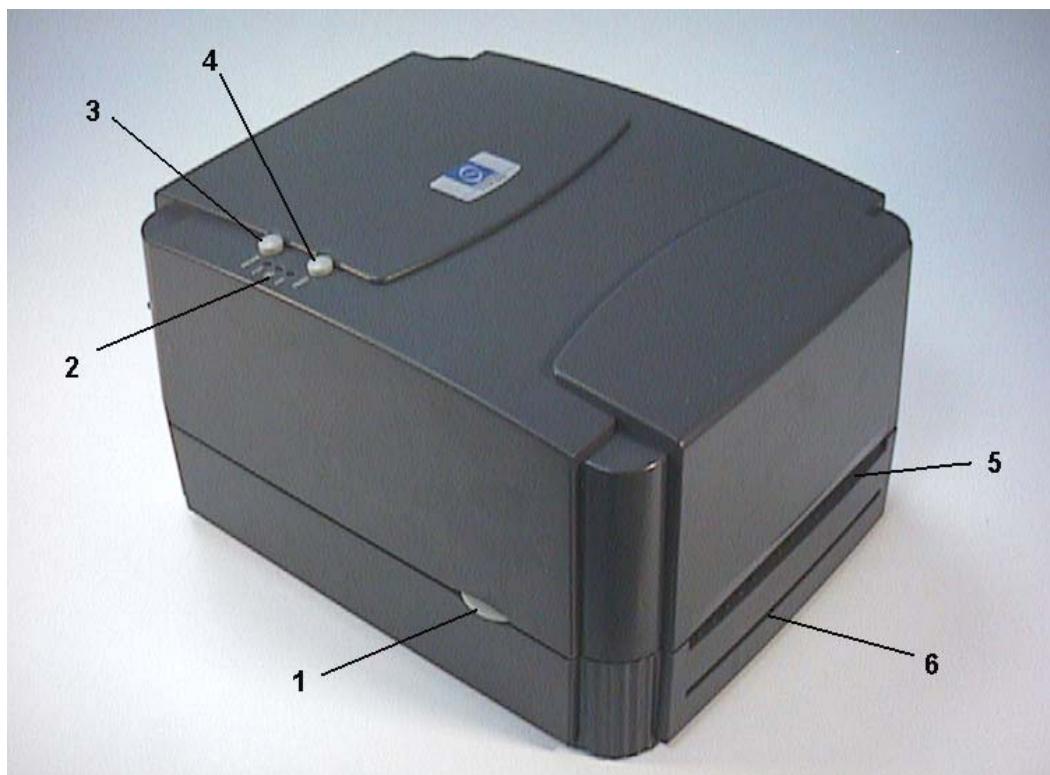


Figure 1. Top front view

1. Cover Release Button
2. PWR., ON-LINE and ERR. Indicators
3. PAUSE Button
4. FEED Button
5. Label Dispense Opening
6. Backing Paper Opening (for use with self-peeling function)

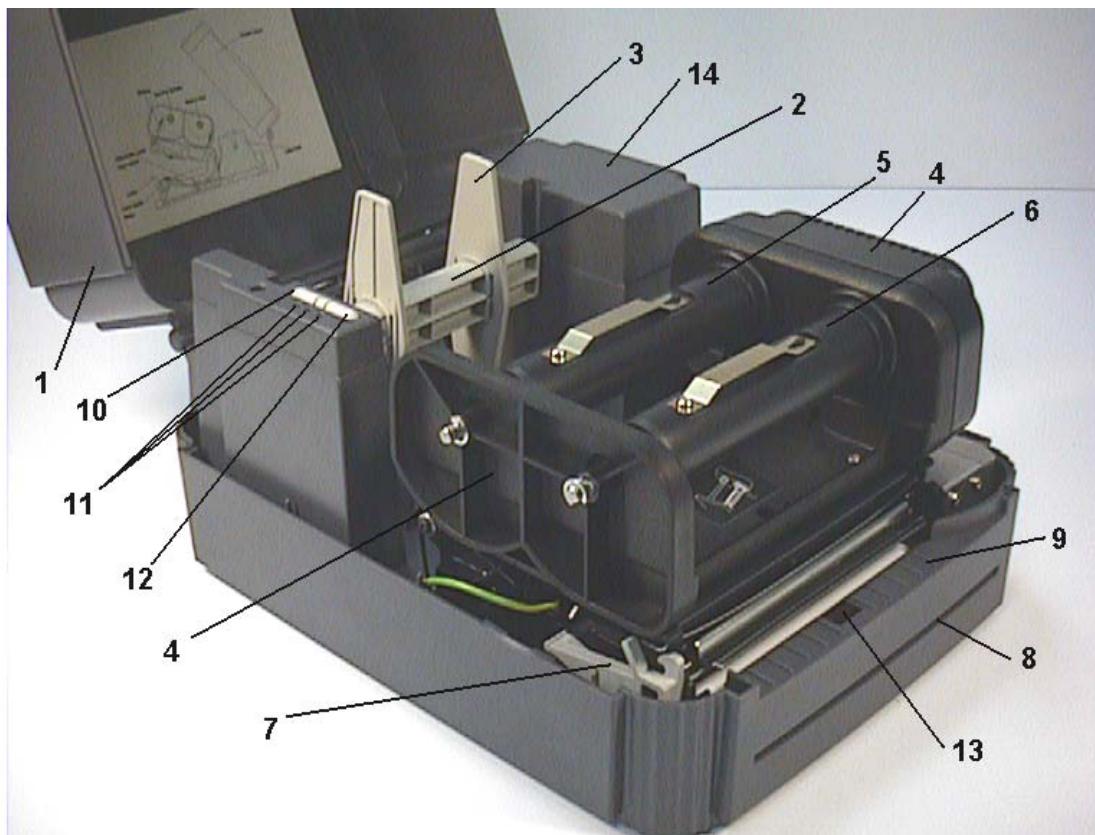


Figure 2. Interior view

1. Printer Cover (in open position)
2. Label Supply Roll Spindle
3. Fixing Tabs
4. Ribbon Mechanism
5. Ribbon Supply Spindle
6. Ribbon Rewind Spindle
7. Printer Carriage Release Lever
8. Backing Paper Opening
9. Detachable Front Panel
10. PAUSE Button
11. PWR., ON-LINE, ERR. Indicators
12. FEED Button
13. Peel-Off Sensor
14. Memory Module Slot (with cover on)

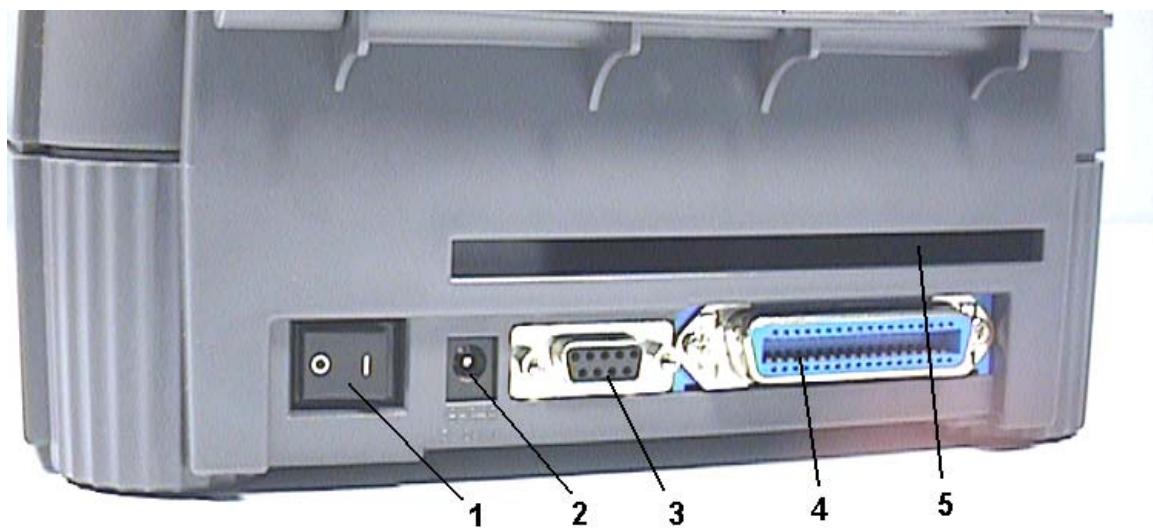


Figure 3. Rear view

1. Power On/Off Switch
2. Power Supply Connector
3. RS-232C DB-9 Interface Connector
4. Centronics Interface Connector
5. Label Insert Opening (for use with external labels)

2.4 External Label Roll Mount



Figure 4. External label roll mount

2.5 Buttons and Indicators

PWR. (POWER) Indicator

The green **PWR.** indicator illuminates when the **POWER** switch is turned on.

ON-LINE Indicator

The green **ON-LINE** indicator illuminates when the printer is ready to print. When **PAUSE** button is pressed, the **ON-LINE** indicator flashes.

ERR. Indicator (Error/Paper Empty)

The red **ERR.** indicator illuminates in the event of a printer error, such as memory error, syntax error, and so forth. For a full list of error messages, please refer to section 4.2, Troubleshooting Guides.

PAUSE Button

The **PAUSE** button allows the user to stop a print job and then continue the printing with a second depression of the button. By pressing the **PAUSE** button: (1) the printer stops printing after the printing label, (2) the **PAUSE** LED flashes, and (3) the printer will hold all data in memory. This allows for trouble-free replacement of label stock and thermal transfer ribbon. A second depression of the **PAUSE** button will restart the printer.

Note: If the PAUSE button is held down for more than 3 seconds, the printer will be reset and all data of the previous printing job will be lost.

FEED Button

Press the **FEED** button to feed the label to the beginning of the next label.

3. SET UP

3.1 Setting Up the Printer

1. Place the printer on a flat, secure surface.
2. Make sure the **POWER** switch is off.
3. Connect the printer to the computer mainframe with the provided RS-232C or Centronics cable.
4. Plug the power cord into the power supply connector at the rear of the printer, and then plug the power cord into a properly grounded receptacle.

3.2 Loading Label and Tag Stock

1. Open the printer cover
2. Disengage the printer carriage by pulling the printer carriage release lever on the left side of the platen.
3. Slide the label supply roll spindle through the core of a label roll and attach the fixing tabs onto the spindle.
4. Place the label roll into the label roll mount. Feed the label under the carriage and over the platen.
5. Adjust the label guide to fit the width of the media.
6. Engage the printer carriage.
7. Wind the label roll until it becomes adequately taut.
8. Close the printer cover and press the **FEED** button three or four times until the green **ON-LINE** indicator illuminates.
9. When the printer is out of ribbon or media, the **ON-LINE** LED will not illuminate and the **ERR.** LED will flash. Reload the ribbon or media without turning off the printer power. Press the **FEED** button three or four times until the **ON-LINE** LED illuminates. The printing job will be resumed without data loss.

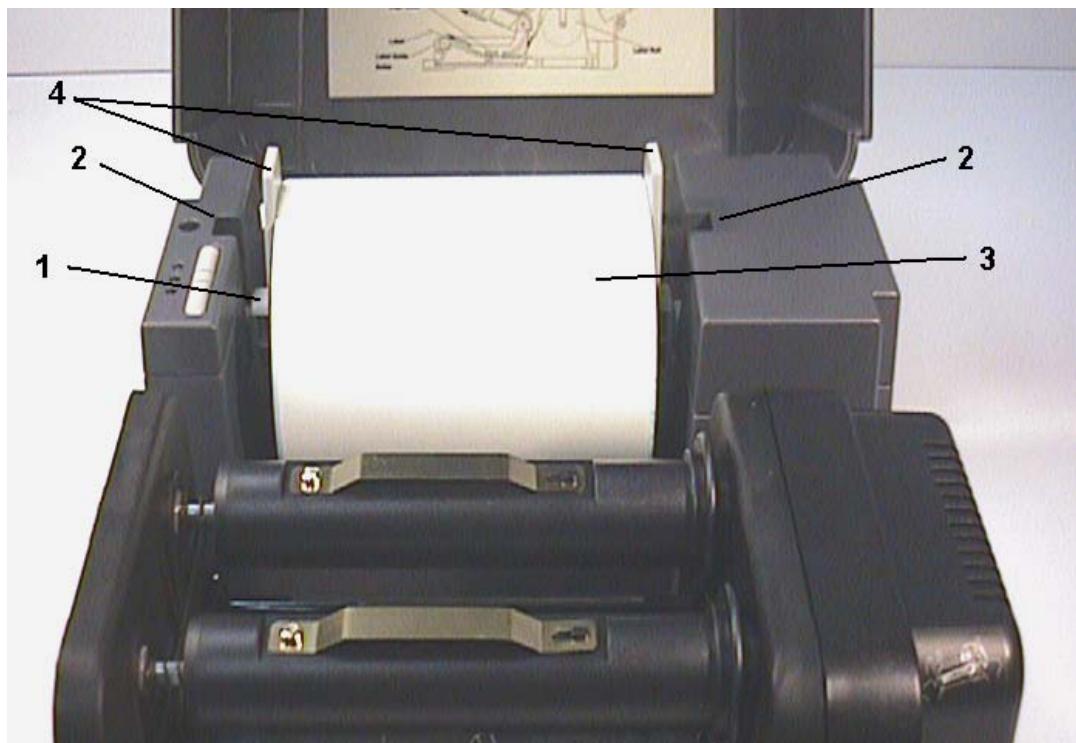


Figure 5. Inserting label supply roll into label roll mount

1. Label Supply Roll Spindle
2. Label Roll Mount
3. Label Roll
4. Fixing Tabs

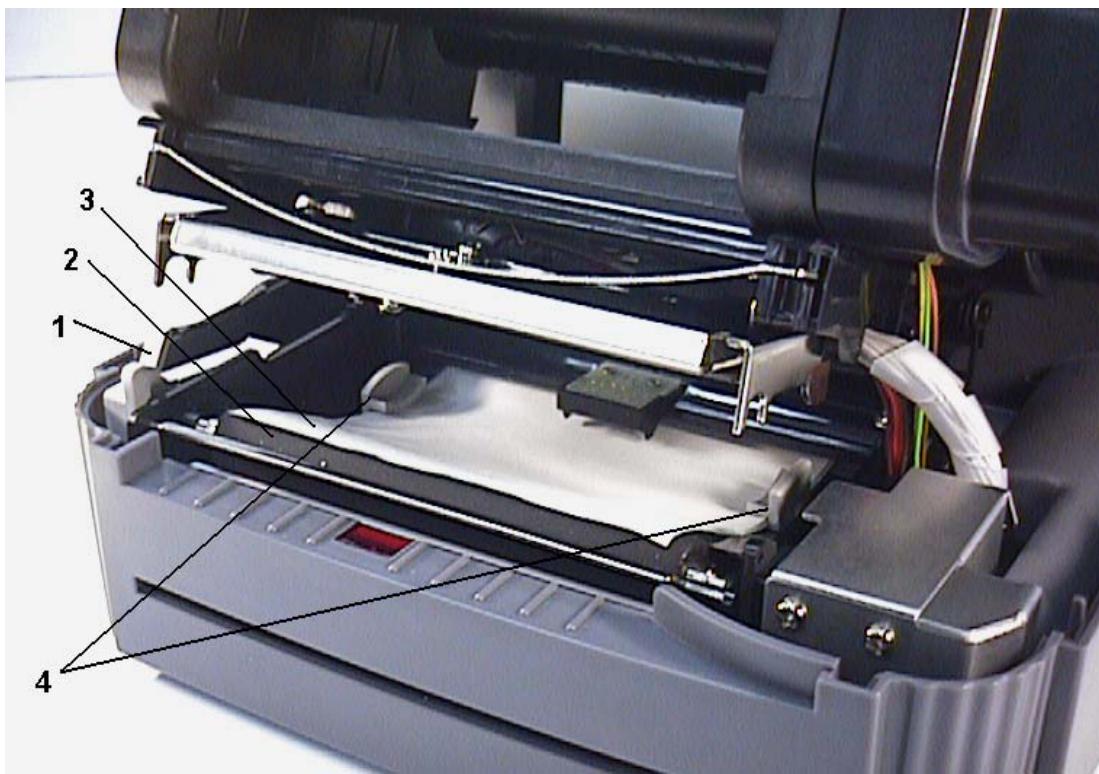


Figure 6. Feed labels through adjustable label guide

1. Printer Carriage Release Lever
2. Platen
3. Label Media
4. Adjustable Label Guide

3.3 Self-Peeling Function

To employ the self-peeling function, load the label stock according to the following steps.

1. Remove the front panel.
2. Tear off the foremost one or two labels of the label stock, as befits the case. Feed the backing paper between the platen and the white “self-peeling” roller, as shown in Figure 7.
3. Feed the backing paper through the backing paper opening in the front panel, as shown in Figure 8.
- 4 Put back the front panel.

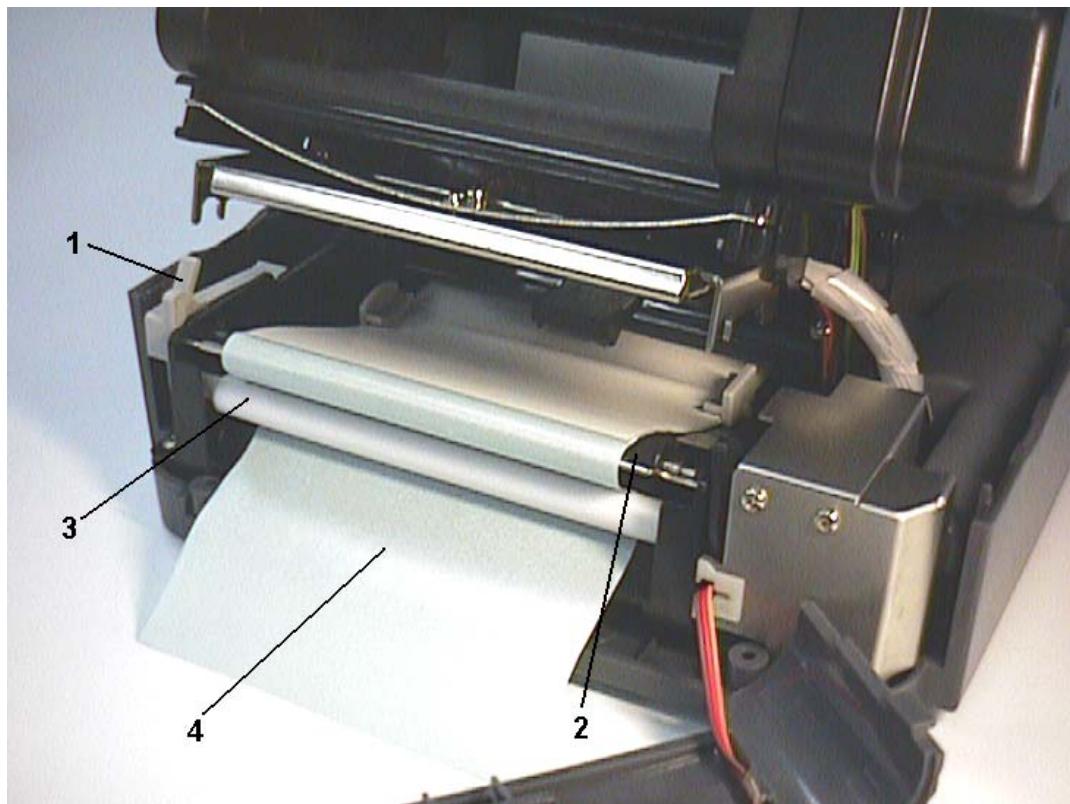


Figure 7. Setting up printer for self-peeling function

1. Printer Carriage Release Lever
2. Platen
3. Self-Peeling Roller
4. Backing Paper

Note:

It is recommended that the print speed be set at 2 inches (1.5 inches for TTP-342 Plus) per second when using the self peeling function of the printer.

Peel off function is not available for 243E series printer.

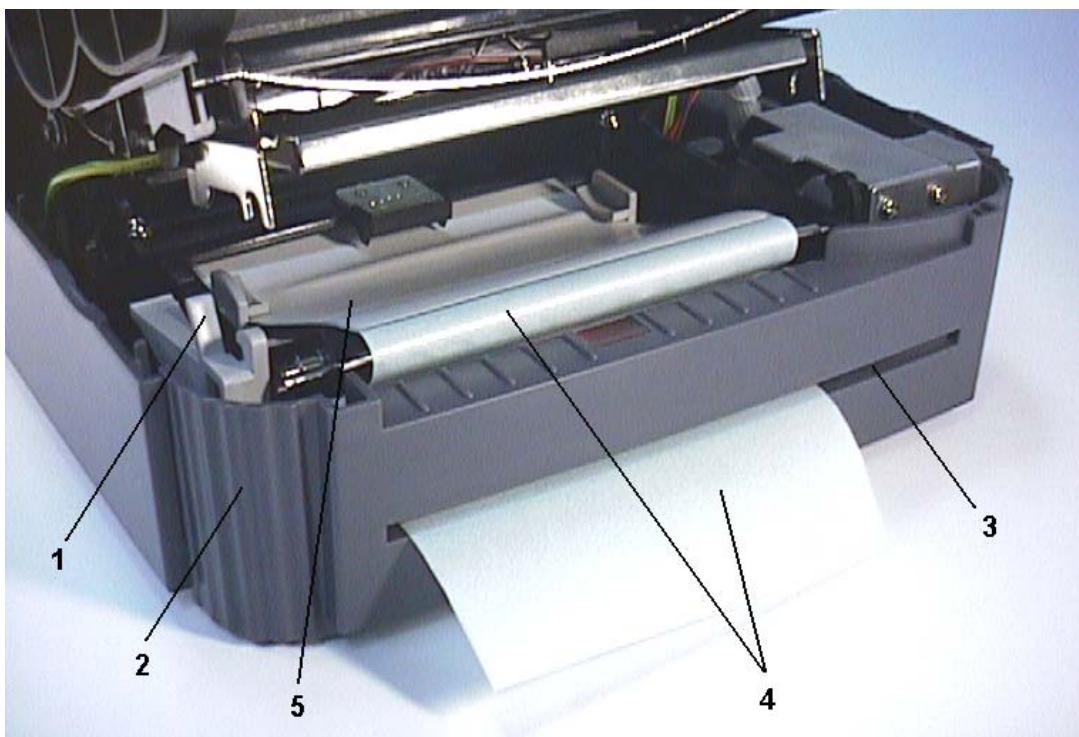


Figure 8. Printer ready for self-peeling function

1. Printer Carriage Release Lever
2. Printer Front Panel
3. Backing Paper Opening
4. Backing Paper
5. Label

Note: The 243E series printer is not equipped with the self-peeling device.

3.4 Ribbon Loading Instructions

1. Place an empty paper core on the ribbon rewind spindle.
2. Install the ribbon on the ribbon supply spindle.
3. Disengage the printer carriage.
4. Pull the ribbon leader to the front from beneath the printer carriage. Attach the ribbon leader to the ribbon rewind paper core.
5. Rotate the ribbon rewind roller until the ribbon leader is thoroughly, firmly encompassed by the black section of the ribbon.
6. Engage the printer carriage.
7. Close the printer cover and press the **FEED** button until the green **ON-LINE** LED illuminates.

Note: Please install ribbon and media and close print head mechanism prior to turn on power. Printer will determine direct thermal or thermal transfer mode automatically while turning on printer power.



Figure 9. Placement of ribbon supply roll

1. Printer Carriage Release Lever
2. Ribbon Supply Spindle
3. Ribbon Rewind Spindle
4. Thermal Transfer Ribbon

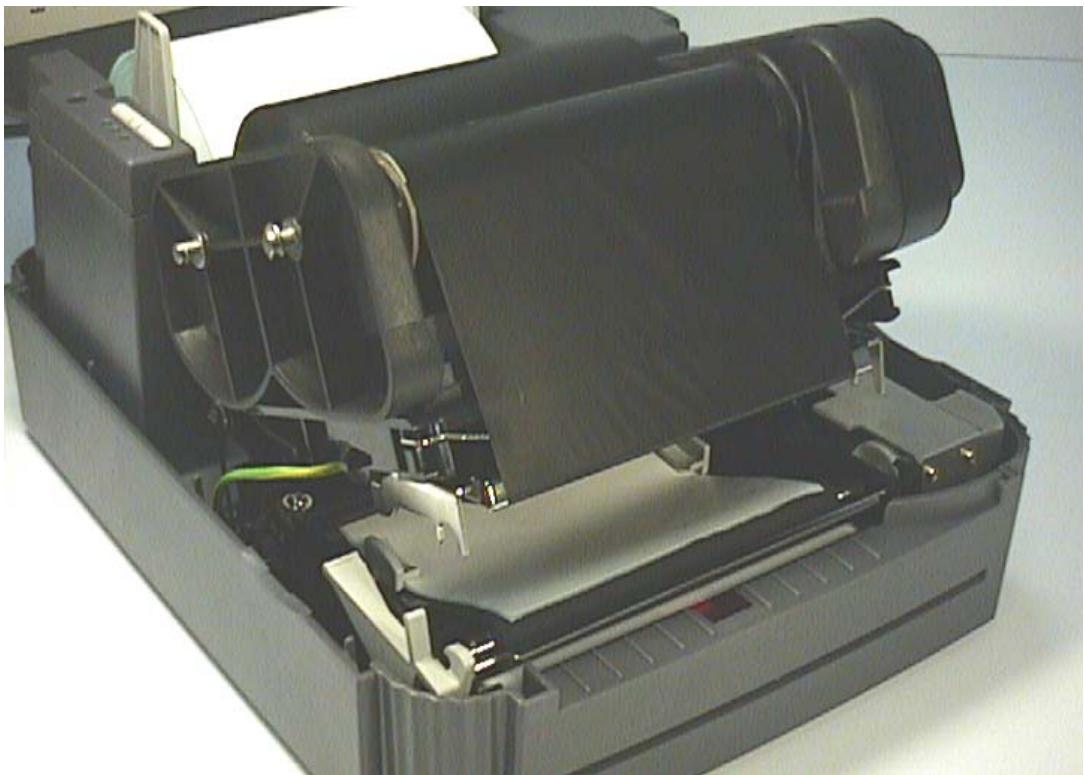


Figure 10. Installation of label stock and thermal transfer ribbon

3.5 Install External Label Roll Mount

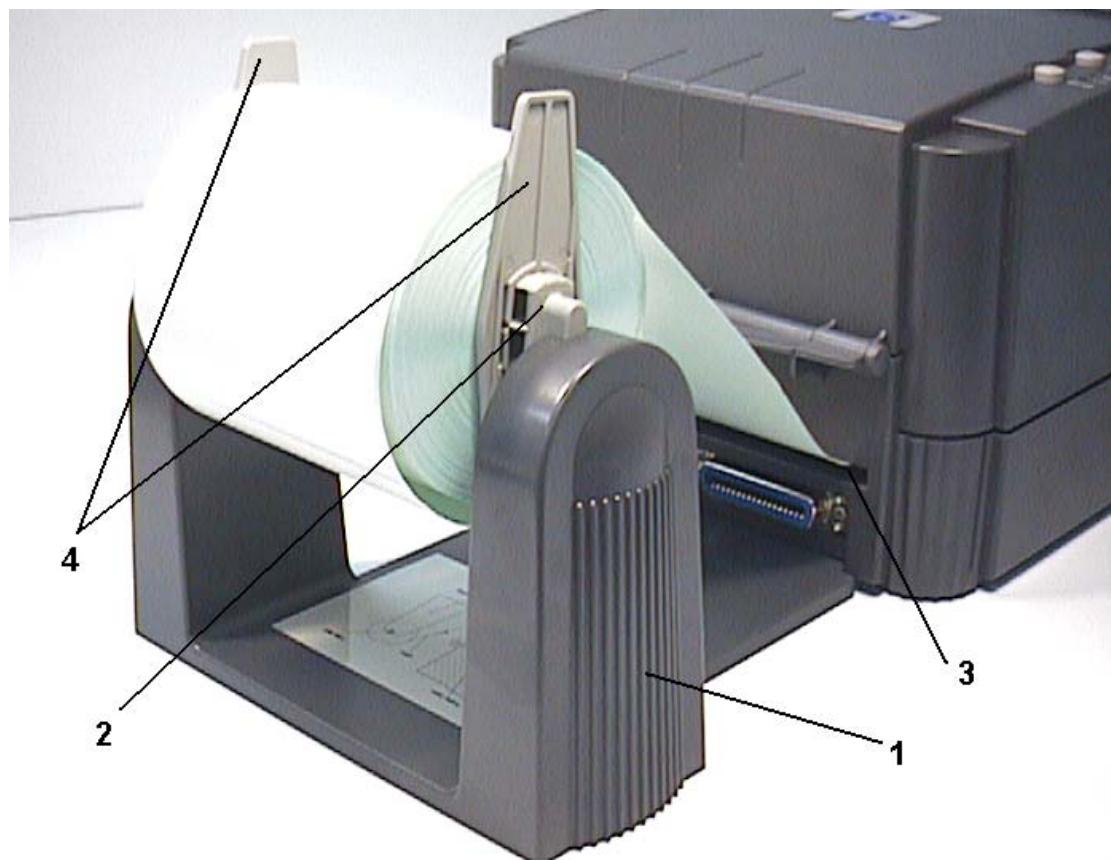


Figure 11. Installation of external label roll mount

1. External Label Roll Mount
2. Label Supply Roll Spindle
3. External Label Feed Opening
4. Fixing Tabs

3.6 Install Memory Module (Option)

1. Power off the printer.
2. Remove the cover.
3. Insert the memory module.
4. Put the cover back.
5. Turn on the power

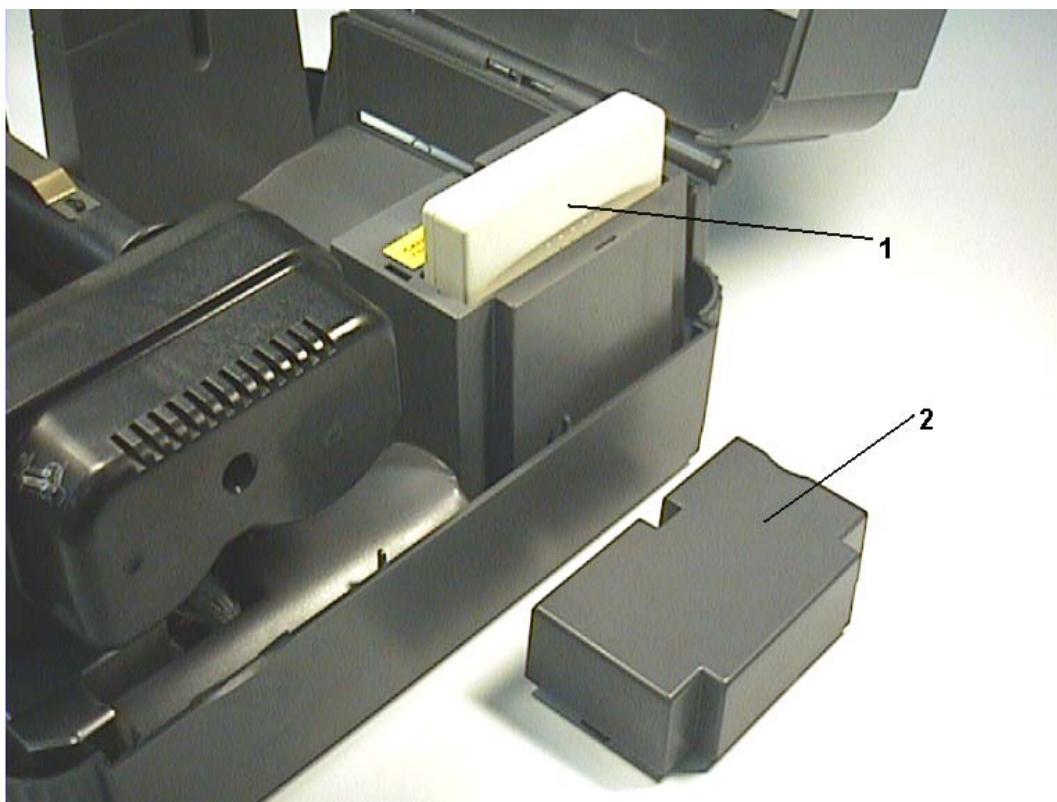


Figure 12. Installation of memory module (Option)

1. Memory Module
2. Cover

3.7 Self Test

To initiate the self-test mode, depress the **FEED** button while turning on the printer power. The printer will calibrate the label length. If the label gap is not detected within 7", the printer stops feeding labels and the media is treated as continuous paper. In self test, a check pattern is used to check the performance of the thermal print head. Following the check pattern, the printer prints internal settings as listed below:

1. Printer model and firmware version
2. Mileage
3. Check sum
4. Serial port setting
5. Code page setting
6. Country code setting
7. Print speed setting
8. Print density setting
9. Label size setting
10. Gap (Bline) width and offset setting
11. Backing paper transparency
12. File list
13. Available memory space

When the self-test is completed, the printer enters the dump mode. Please turn the printer's power off and then on to resume normal printing.

PRINTER INFO.

TTP243P Version: 1.01
MILAGE(Km): 0.0499
CHECKSUM: 02E2F1C0
SERIAL PORT:9600,N,8,1
CODE PAGE: 437
COUNTRY CODE: 001
SPEED: 2 INCH
DENSITY: 12
SIZE: 4.10 , 3.97
GAP: 0.24 , 0.00
TRANSPARENCY: 137

FILE LIST:

DRAM FILE:	0	FILE(S)
FLASH FILE:	0	FILE(S)
TOTAL FLASH:	1024	KBYTES
AVAIL FLASH:	1024	KBYTES
TOTAL DRAM:	256	KBYTES
AVAIL DRAM:	256	KBYTES

END OF FILE LIST:

3.8 Dump Mode

After the self-test, the printer enters the dump mode. In this mode, any characters sent from the host computer will be printed in two columns, as shown. The characters received will be shown in the first column, and their corresponding hexadecimal values, in the second. This is often helpful to users for the verification of programming commands or debugging of printer programs. Reset the printer by turning the **POWER** switch off and on.

```
*****  
NOW IN DUMP MODE  
  
DOWNLOAD "DE 44 4F 57 4E 4C 4F 41 44 20 22 44 45  
M02.BAS" SI 4D 4F 32 2E 42 41 53 22 0D 0A 53 49  
ZE 4.00,5.00 5A 45 20 34 2E 30 30 2C 35 2E 30 30  
CLS SPEED 0D 0A 43 4C 53 0D 0A 53 50 45 45 44  
1.5 DENSIT 20 31 2E 35 0D 0A 44 45 4E 53 49 54  
Y 10 DIRECT 59 20 31 30 0D 0A 44 49 52 45 43 54  
ION 0 SET C 49 4F 4E 20 30 0D 0A 53 45 54 20 43  
UTTER OFF S 55 54 54 45 52 20 4F 46 46 0D 0A 53  
ET DEBUG LAB 45 54 20 44 45 42 55 47 20 4C 41 42  
EL REFERENC 45 4C 0D 0A 52 45 46 45 52 45 4E 43  
E 0,0 A=100 45 20 30 2C 30 0D 0A 41 3D 31 30 30  
0 Y=100 FO 30 0D 0A 59 3D 31 30 30 0D 0A 46 4F  
R I=1 TO 3 52 20 49 3D 31 20 54 4F 20 33 0D 0A  
BARCODE 100, 42 41 52 43 4F 44 45 20 31 30 30 2C  
Y, "39", 96, 1, 59 2C 22 33 39 22 2C 39 36 2C 31 2C  
0,2,4,STR$(A 30 2C 32 2C 34 2C 53 54 52 24 28 41  
) A=A+1 Y= 29 0D 0A 41 3D 41 2B 31 0D 0A 59 3D  
Y+150 NEXT 59 2B 31 35 30 0D 0A 4E 45 58 54 0D  
PRINT 1 EO 0A 50 52 49 4E 54 20 31 0D 0A 45 4F  
P DEMO2 50 0D 0A 44 45 4D 4F 32 0D 0A
```

4. USING TTP-243 series/243E series/342 series

4.1 Power-on Utilities

There are three power-on utilities to set up and test printer hardware. These utilities are activated by pressing the **FEED** or **PAUSE** button and turning on the printer power simultaneously. The utilities are listed as below:

1. Self-test
2. Gap sensor calibration
3. Printer initialization

4.1.1 Self Test Utility

Install the label first. Press the **FEED** button and then turn on the printer power. Do not release the **FEED** button until the printer feeds labels. The printer performs the following items:

1. Calibrate label pitch
2. Print out thermal print head check pattern
3. Print the internal settings
5. Enter dump mode

Regarding the self-test and dump mode, please refer to section 3.7 "Self Test" and section 3.8 "Dump Mode" for more information.

4.1.2 Gap Sensor Calibration Utility

This utility is used to calibrate the sensitivity of gap sensor. Users may have to calibrate the gap sensor for two reasons:

1. The media is being changed to a new type.
2. Initialize the printer.

Note: The ERR. LED may flash if gap sensor is not calibrated properly.

Please follow the steps below to calibrate gap sensor:

1. Turn off the printer power and install blank labels (without any logo or character) on printer.
2. Hold down the **PAUSE** button then turn on printer power.
3. Release **PAUSE** button when the printer feeds labels. **Do not turn off printer power** until the printer stops and two green LEDs light on.

Note: Black mark sensor has fixed sensitivity. It is no need to calibrate the black mark sensor

4.1.3 Printer Initialization

Printer initialization clears all downloaded files resident in flash memory, and sets printer parameters to default values.

Parameter	Default Value
MILEAGE	Automatic
CHECK SUM	Automatic
SERIAL PORT	9600,N,8,1
CODE PAGE	437 (8 bit), USA (7 bit)
COUNTRY CODE	001
SPEED	2.0"/sec
DENSITY	08
SIZE	4", 2.5"
GAP (BLINE)	0.12, 0
TRANSPARANCY	Will be reset. Need to re-calibrate the gap sensor

Please follow the steps below to initialize the printer:

1. Turn off the printer power.
2. Hold down the **PAUSE** and **FEED** buttons and turn on the printer power.
3. Do not release the buttons until the three LEDs flash in turn.

Note 1: Printing method (thermal transfer or thermal direct printing) will be set automatically at the activation of printer power.

Note 2: When printer initialization is done, please calibrate the gap sensor again.

Note 3: Download files will be deleted after printer initialization.

4.2 Troubleshooting Guide

The following guide lists some of the most common problems that may be encountered when operating the bar code printer. If the printer still does not function after all suggested solutions have been invoked, please contact the Customer Service Department of your purchased reseller or distributor for assistance

Problem	Solution
Ribbon does not advance or rewind	<ol style="list-style-type: none">1. The media and ribbon must be installed then engage the print head mechanism prior to turning on printer power.2. Install the black ribbon spindle at the correct direction.
Poor print quality	<ol style="list-style-type: none">1. Clean the thermal print head.2. Adjust the print density setting.3. Ribbon and media are not compatible.4. Media thickness is over spec.
Power indicator does not illuminate	<ol style="list-style-type: none">1. Check the power cord, see whether it is properly connected.2. Check if the LED on the power supply is illuminated. If it is not lit on, then the power supply is damaged.
ON-LINE indicator is off, ERR. indicator is on	<ol style="list-style-type: none">1. Out of paper or out of ribbon2. Calibrate the sensitivity of gap sensor.3. Ribbon rewind spindle paper core is not installed.
Continuous feeding when printing labels	Calibrate the gap sensor.



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