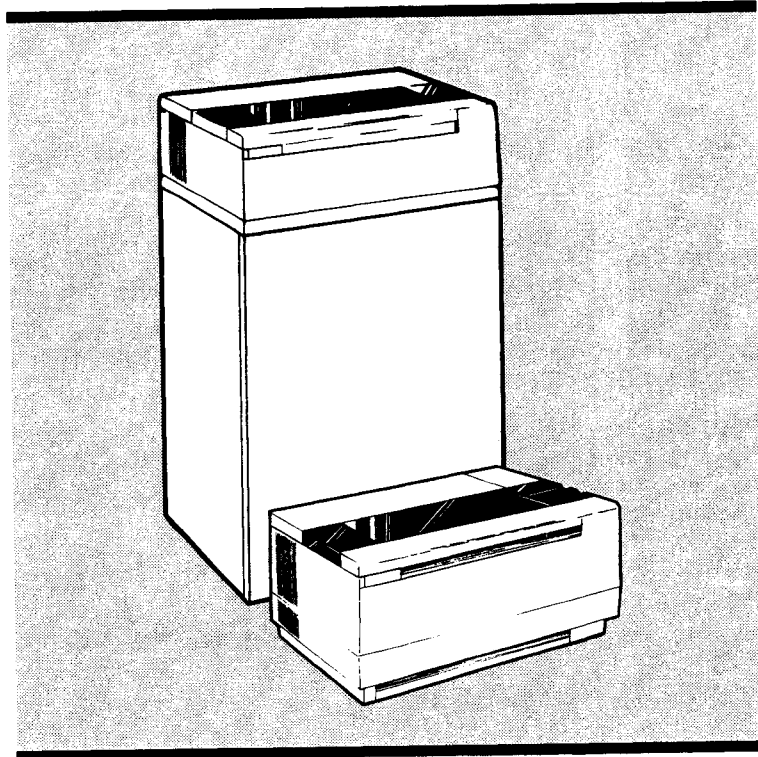


2562C 2563A/B/C Service Manual

Manual P/N 02563-90971



PUBLICATION HISTORY

Changes in text to document updates subsequent to the initial release are supplied in manual update notices and/or complete revisions to the manual. The history of any changes to this edition of the manual is given below. The last update itemized reflects the machine configuration documented in the manual.

Any changed pages supplied in an update package are identified by an update number adjacent to the page number. Changed information is specifically identified by a vertical line (revision bar) on the outer margin of the page.

First Edition, October 1993

Second Edition, June 1994

NOTICE

The information contained in this document is subject to change without notice.

HEWLETT-PACKARD MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information which is protected by copyright. All rights are reserved. No part of this document may be photocopied or reproduced without the prior written consent of Hewlett-Packard Company.

Copyright 1993 by Hewlett-Packard Company

Table of Contents

The following conventions are used throughout this manual:

NOTE

Notes contain important information that is set off from the text.

CAUTION

Caution messages appear before procedures which, if not observed, could result in damage to equipment.

WARNING

Warning messages indicate when a specific procedure or practice is not followed correctly, personal injury could occur.

TABLE OF CONTENTS

Chapter 1. Product Information

1-1.	INTRODUCTION	1 - 3
1-2.	PRODUCT DESCRIPTIONS	1 - 3
1-3.	IDENTIFICATION	1 - 4
1-4.	OPTIONS	1 - 4
1-5.	SUPPLIES	1 - 8
	RIBBON CARTRIDGES	1 - 8
	PAPER	1 - 8
1-6.	RELATED MANUALS	1 - 9
1-7.	SPECIFICATIONS	1 - 9
	PHYSICAL CHARACTERISTICS	1 - 9
	ELECTRICAL CHARACTERISTICS	1 - 9
	ENVIRONMENTAL	1 - 10
1-8.	SAFETY COMPLIANCE	1 - 11
1-9.	FCC RFI STATEMENT	1 - 11
1-10.	SERVICE APPROACH	1 - 12

Chapter 2. Installation

2-1.	INTRODUCTION	2 - 3
2-2.	SITE REQUIREMENTS	2 - 4
	ENVIRONMENTAL	2 - 4

Table of Contents

	PHYSICAL	2 - 4
2-3.	UNPACKING AND INSTALLATION	2 - 4
	UNPACKING: 2563C (CABINET-MOUNTED PRINTERS)	2 - 5
	UNPACKING: PAPER STACKING AID (2563C PRINTERS)	2 - 11
	INSPECTION: 2563C (CABINET-MOUNTED PRINTERS)	2 - 14
	INSTALLATION: PAPER STACKING AID (2563C PRINTERS)	2 - 16
	UNPACKING: 2562C (DESKTOP PRINTER)	2 - 23
	INSPECTION: 2562C (DESKTOP PRINTER)	2 - 24
	COMPLETING THE INSTALLATION (ALL PRINTERS)	2 - 25
2-4.	POWER CONFIGURATION	2 - 25
2-5.	SELF-TEST	2 - 27
2-6.	PRINTER CONFIGURATION	2 - 28
2-7.	I/O CONFIGURATION	2 - 28
2-8.	UNPACKING AND INSTALLATION	2 - 29
	SOUND ENCLOSURE (New-Look)	2 - 29
	INSPECTION	2 - 33
	INSTALLATION: SOUND ENCLOSURE	2 - 34
	COMPLETING THE INSTALLATION	2 - 43

Chapter 3. Theory of Operation

3-1.	INTRODUCTION	3 - 3
3-2.	FUNCTIONAL OPERATION	3 - 5
	ENERGIZING OF THE PRINT BAR HAMMERS	3 - 5
	DOT POSITIONING	3 - 5
	HORIZONTAL DOT PLACEMENT	3 - 6
	VERTICAL DOT PLACEMENT	3 - 6
	PRINT SPEED	3 - 6
3-3.	FORMATTER PCA	3 - 8
	MEMORY MANAGEMENT	3 - 8
	PROCESSOR COMMUNICATION	3 - 11
	CLOCKING	3 - 12
3-4.	DOT GENERATION LOGIC	3 - 13
	CHARACTER SET SELECTION	3 - 19
	DESCENDER SCAN	3 - 19
	AUTO-UNDERLINING	3 - 21
	EXPAND MODE	3 - 21
	VARIABLE GRID	3 - 21
3-5.	ANALOG/BACKPLANE PCA	3 - 23
3-6.	FORMATTER INTERFACE (Analog PCA)	3 - 24
3-7.	STEPPER MOTOR CIRCUITRY (ANALOG PCA)	3 - 28
3-8.	PRINT BAR MOTOR DRIVE CIRCUITRY	3 - 30
	PRINT BAR MOTOR DRIVE OPERATION	3 - 30
	STARTING ALGORITHM	3 - 31
3-9.	HAMMER DRIVER CIRCUITRY (ANALOG PCA)	3 - 31
	TOO MANY DOTS	3 - 39
	CURRENT SENSING	3 - 39
	LOGIC SIGNALS	3 - 39
3-10.	ENCODER PCA	3 - 40
	ENCODER PROCESSOR	3 - 41
3-11.	256X FRONT PANEL PCA	3 - 44
3-12.	SENSORS (Connected To Analog PCA)	3 - 45

Table of Contents

3-13.	POWER SUPPLY (Analog PCA)	3 - 46
	INPUT POWER AND POWER SELECTION	3 - 46
	RIBBON MOTOR CONTROL	3 - 48
	+50 VOLT SWITCHED SUPPLY	3 - 48
	DC VOLTAGE REGULATORS	3 - 50
	POWER-ON RESET	3 - 50
	POWER-FAIL WARNING	3 - 51
	CROWBAR PROTECTION	3 - 51

Chapter 4. Configuration and Diagnostics

4-1.	INTRODUCTION	4 - 3
4-2.	PRINTER CONFIGURATION AND STATUS INFORMATION	4 - 3
	PRIMARY CHARACTER SET: CONFIGURATION 1	4 - 6
	SECONDARY CHARACTER SET: CONFIGURATION 2	4 - 6
	REMOTE CHARACTER SET SELECTION	4 - 6
	SELECT PAGE LENGTH REPRESENTATION: CONFIGURATION 7	4 - 6
	DISCONNECT MODEM: CONFIGURATION 50	4 - 9
	GRAPHICS SPEED SELECTION: CONFIGURATION 51	4 - 9
	HORIZONTAL GRAPHICS DENSITY SELECTION: CONFIGURATION 52	4 - 9
	DIFFICULT FORMS MODE: CONFIGURATION 53	4 - 9
	PERFORATION SKIP MODE: CONFIGURATION 60	4 - 9
	DISPLAY FUNCTIONS MODE: CONFIGURATION 61	4 - 10
	VERTICAL LINE SPACING	4 - 10
4-3.	OPERATIONAL STATUS CODES	4 - 10
4-4.	SELF-TEST AND SELECTABLE SUBTESTS	4 - 11
	STANDARD SELF-TEST	4 - 11
	SELECTABLE DIAGNOSTIC SUBTESTS	4 - 15
4-5.	CE MODE OPERATION	4 - 16
4-6.	ERRORS	4 - 16
4-7.	PRINTER ERROR LOG	4 - 17
	READING THE ERROR LOG	4 - 18
	CLEARING THE ERROR LOG	4 - 18
4-8.	INTERFACE CONFIGURATION	4 - 18

Chapter 5. Adjustments

5-1.	INTRODUCTION	5 - 3
5-2.	REQUIRED TOOLS	5 - 3
5-3.	SEQUENCE OF ADJUSTMENTS	5 - 3
5-4.	CRANK ARM PHASE ADJUSTMENT	5 - 3
5-5.	ENCODER GAP ADJUSTMENT	5 - 6
5-6.	PLATEN GAP ADJUSTMENT	5 - 7
5-7.	ENCODER FRONT PANEL ADJUSTMENTS	5 - 10
	FLIGHTTIME ADJUSTMENT	5 - 11
	OFFSET ADJUSTMENT	5 - 12
5-8.	COLD START	5 - 13

Table of Contents

Chapter 6. Removal and Replacement

6-1.	INTRODUCTION	6 - 3
6-2.	TOOLS REQUIRED	6 - 3
6-3.	TOP COVER	6 - 4
	FRONT PANEL PCA	6 - 7
	BACKPLANE PCAs	6 - 8
	ANALOG/BACKPLANE PCA	6 - 8
6-4.	PRINTER WELDMENT	6 - 10
	STEPPER MOTOR	6 - 13
	PAPER FEED TRACTORS	6 - 15
	RIBBON MOTOR	6 - 17
6-5.	PRINT MECHANISM	6 - 18
	PRINT BAR	6 - 19
	RIBBON SHIELD	6 - 22
	PRINT BAR DRIVE MOTOR	6 - 23
	ENCODER PCA	6 - 28
	SENSOR SWITCHES	6 - 29
	PLATEN ASSEMBLY	6 - 30
6-6.	LOWER FAN	6 - 33
6-7.	UPPER FAN	6 - 33
6-8.	TRANSFORMER	6 - 36

Chapter 7. Parts & Diagrams

7-1.	INTRODUCTION	7 - 3
7-2.	USING THIS CHAPTER	7 - 3
	DESCRIPTION OF PARTS LIST	7 - 4
7-3.	PARTS ORDERING PROCEDURE	7 - 4
7-4.	DIAGRAMS AND PARTS LISTS	7 - 4
	FIGURE 7-1. Main Printer Assemblies	7 - 5
	FIGURE 7-2. Top Level IPB	7 - 7
	FIGURE 7-3. Paper Stacking Aid (2563C Version)	7 - 9
	FIGURE 7-4. Sound Enclosure Assemblies	7 - 11
	FIGURE 7-5. Print Mech And Paper Motion Assy Parts	7 - 13
	FIGURE 7-6. Print Mech Paper/Ribbon Assy Parts	7 - 15
	FIGURE 7-7. Print Mechanism Assembly	7 - 17
	FIGURE 7-8. Print Mechanism Casting Assembly	7 - 19
	FIGURE 7-9. New Paper Path Assembly	7 - 21
	FIGURE 7-10. Stand And Printer Base Area Assembly	7 - 23
	FIGURE 7-11. Base Assembly Parts	7 - 25
	FIGURE 7-12. Sensor Assembly Parts	7 - 27
	FIGURE 7-13. Printer Stand (2563A Option 114)	7 - 29
	FIGURE 7-14. Sound Shroud/Stacking Aid (2564B)	7 - 31
	FIGURE 7-15. Sound Cover (26764A) Parts	7 - 33
	FIGURE 7-16. Paper Stacker (2563A Version - P/N 26763A)	7 - 34
	FIGURE 7-17. Power Cables	7 - 35

Table of Contents

Appendix A. Diagnostics Errors

Appendix B. Print Quality Problems

Appendix C. Testpoint Diagram

Appendix D. ANZAC Support Supplement

Appendix E. Paper Specifications

Appendix F. Service Notes