For the full Service Manual Please visit LaserPros.com



Service Manual

HP Designjet Z2100/Z3100/Z3100ps/Z3200/ Z3200ps GP Photo Printer Series



Version 10.0 September 21, 2008

For HP Internal Use Only

©Copyright Hewlett-Packard Company 2008

This document contains proprietary information that is protected by copyright. All rights are reserved. The information contained herein is subject to change without notice.No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Hewlett-Packard Company.

Version 10.0, September 21, 2008

Warranty

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.

WARNING

The procedures described in this manual are to be performed by HP-qualified service personnel only.

Electrical Shock Hazard

Serious shock hazard leading to death or injury may result if you do not take the following precautions:

- Ensure that the ac power outlet (mains) has a protective earth (ground) terminal.

- Disconnect the Printer from the power source prior to performing any maintenance.

- Prevent water or any other liquids from running onto electrical components or circuits, or through openings in the enclosure.

Electrostatic Discharge

Refer to the beginning of Chapter 4of this manual, for precautions you should take to prevent damage to the Printer circuits from electrostatic discharge.

Safety Symbols

General definitions of safety symbols are given immediately after the table of contents.

WARNING

The Warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond a Warning symbol until the indicated conditions are fully understood and met.

CAUTION

The Caution symbol calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood and met.

Content Management Department, Barcelona Division, Hewlett-Packard Espanola, S.A. Avda. Graells, 501 08190 Sant Cugat del Valles Spain



Table of Contents

- 1 Troubleshooting
- 2 System Error Codes
- 3 Service Tests and Utilities
- 4 Service Calibrations
- 5 Parts and Diagrams
- 6 Removal and Installation
- 7 Preventive Maintenance

For information about Using this Manual, please refer to the next page.



Using this Manual

Purpose

This Service Manual contains information necessary to test, calibrate and service:

- HP designjet Z2100 Photo Printer 24 inch (Model Q6675A)
- HP designjet Z2100 Photo Printer 44 inch (Model Q6677A)
- HP designjet Z2100 Photo Printer Revision C 24 inch (Model Q6675C)
- HP designjet Z2100 Photo Printer Revision C 44 inch (Model Q6677C)
- HP designjet Z3100 Photo Printer 24 inch (Model Q5669A)
- HP designjet Z3100 Photo Printer 44 inch (Model Q6659A)
- HP designjet Z3100ps Photo Printer 24 inch (Model Q5670A)
- HP designjet Z3100ps Photo Printer 44 inch (Model Q6660A)
- HP designjet Z3200 Photo Printer 24 inch (Model Q6718A)
- HP designjet Z3200 Photo Printer 44 inch (Model Q6719A)
- HP designjet Z3200ps Photo Printer 24 inch (Model Q6720A)
- HP designjet Z3200ps Photo Printer 44 inch (Model Q6721A)

For information about using these printers, refer to the corresponding User and Quick Reference Guides.

Readership

The procedures described in this Service Manual are to be performed by HP Certified service personnel only.

Part Numbers

Part Numbers for Printer options, accessories and service parts are located in Chapter 5, Parts and Diagrams.

Conventions

A small arrow \Rightarrow indicates a link to other parts of the Service Manual where you can find information related to the topic you are consulting.



Troubleshooting

Using the Front Panel 1-4 Introduction 1-5 Using the Front Panel 1-4 Troubleshooting System Error Codes 1-5 Performing a Service Test on a failed Assembly 1-5 Performing the Necessary Service Calibrations 1-6 The Printer does not Power ON 1-6 The Printer does not Power ON 1-6 The Printer Continuously Rejects Printheads 1-6 Cover Sensors are not Working 1-6 The Line Sensor has Problems Detecting Media 1-6 Banding at variable extreme environmental conditions 1-8 Worm marks on HP Coated media with light area fills 1-8 Solving Media-Handling Problems 1-8 Software Troubleshooting 1-10 General advice: 1-10 Problems with Image Clipping 1-10 Output Only Contains a Partial Print 1-11 Some objects are missing from the printed image 1-12 If the spool file size is bigger than 1GB, part of the image will be clipped 1-12 Adobe Photoshop 1-13 Adobe Acrobat 1-16 Microsoft Powerpoint 1-17 Adobe Photoshop CS for Mac 1-18 Adobe Illustrator/InDesign for Mac 1-19 Print Quality Troubleshooting 1-20 Print Quality Troubleshooting Actions 1-20 The Service Image Quality Diagnostic Print 1-21 What is the Service Image Quality Diagnostic Print? 1-21 Considerations for Printing the Diagnostic Print 1-22 Printing the Diagnostic Print 1-22 Reading the Diagnostic Print Results 1-24 Diagnostic Part 1: Printhead Reliability 1-24 Diagnostic Part 2: Printhead Alignment 1-25 Diagnostic Part 3: Printheads & Paper Advance 1-26 No Printing Defects Found in the Diagnostic Print 1-28 The Advanced Diagnostic Prints 1-29 What are the Advanced Diagnostic Prints? 1-29 Printing the Advanced Diagnostics Print 1-29 Reading the Advanced Diagnostic Print Results 1-31 Paper Advance 1-31 Visual Alignment Diagnostic 1-34 Nozzle Health 1-36 Force Drop Detection 1-37

1



Troubleshooting Print Quality Problems 1-38 Print Quality General Advice 1-38 Horizontal Lines Across the Image (Banding) 1-38 Lines are Missing, Too Thin, or Too Thick 1-39 Problems with Stepped Lines 1-40 Lines are Printed Double or in Wrong Colors 1-41 Lines are discontinuous 1-41 Lines are Blurred (Ink Bleeds from Lines) 1-42 Problems with Graininess 1-42 Paper is not Flat 1-43 Print Scuffing or Scratching when Touched 1-45 Marks on the Media 1-45 Problems with the Edges of objects 1-51 Bronzing 1-51 Black and white prints do not look neutral 1-52 Horizontal lines at the end of a cut sheet print 1-52 Vertical lines of different colors 1-52 White spots on the print 1-53 Problems with Color Accuracy 1-53 Ink Supplies Troubleshooting 1-55 Introduction to Ink Supplies 1-55 What are Ink Supplies? 1-55 Ink Cartridges 1-55 Available Ink Cartridges 1-57 Printheads 1-57 Available Printheads 1-58 General Information About the Ink Supplies 1-58 General Precautions When Handling Ink Supplies 1-59 When Should You Replace the Ink Supplies? 1-59 Ink Cartridge Levels, Information, and Replacement 1-59 Ink Cartridge Levels 1-59 "View Ink Levels" Direct Access Key 1-59 "View Ink Levels" from the ink menu 1-60 Obtaining Ink Cartridge Information 1-60 Changing an Ink Cartridge 1-61 Printhead Information, Replacement and Alignment 1-63 Obtaining Printhead Information 1-63 Changing a Printhead 1-64 Aligning Printheads 1-66 Reinsert Printheads Procedure 1-66 Image Quality Maintenance Procedure 1-66 Scanning errors during alignment 1-67 Ink Cartridge and Printhead Status Messages 1-68 Ink Cartridge Status Messages 1-68 Printhead status messages 1-68 Printhead Error Codes 1-69 Solving Ink Supplies Problems 1-70 You Cannot Insert the Ink Cartridge Into the Printer 1-70 You Cannot Insert the Printhead Into the Printer 1-71 The front panel says to reset or replace a printhead 1-71 Maintaining and Cleaning the Printheads 1-72 Clean the printheads 1-72



Flex Contacts Cleaning Tool 1-72