

Ecosys Printer Service Manual FS-1600 Series/FS-3600 Series

Version 1.30



FS-1600/A/+ | FS-3600/A/+
Combined Service Manual
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Corporation
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Revision 1.10 (94/12)
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2-25, 2-34, 2-45, 2-47, 4-5, 4-10,
4-13, 4-15, and all pages in
chapter 5 (Parts Catalog).
Revision 1.20 (95/02)
Inclusion of FS-3600/A
Replaced pages: 2-16, 4-7, 4-27,
4-35
Revision 1.30 (96/02)
(Inclusion of Plus series)

Notice

The information in this manual is subject to change without notification. Additional pages may be inserted in future editions. The user is asked to excuse any technical inaccuracies or typographical errors in the present edition.

No responsibility is assumed if accidents occur while the user is following the instructions in this manual. No responsibility is assumed for defects in the printer's firmware.

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FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Change or modifications not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

Interference cable to the computer shall be used with shielded circular cable.

Warning:

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, etc.) certified to comply with the Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

Check that the cable is wired correctly. If an IBM communication adapter cable type 1502067 is used, it will have to be resoldered the wiring at the printer end of the cable. The procedure is as follows.

INTERFACE CABLES

Either of the following interface cables meets the FCC requirements:

Parallel interface: IBM Printer cable type 1525612

Serial interface: IBM communication adapter cable type 1502067

Resoldering an IBM Cable

- 1 Unscrew the plastic cover from the printer end of the cable.
- 2 Next to each of the wires inside the cable is a bare shield wire. Solder all these shield wires together into a single bundle.
- 3 Using a section of flat wire about 3mm wide and 15mm long, connect the bundle of shield wires to the metal facing of the connector. Check that the solder connectors are secure.
- 4 Desolder wires 2 and 3, then resolder them in crossed configuration: Solder wire 2 to pin 3 and wire 3 to pin 2. Cover the solder joints with thermofit tube.
- 5 Cut wires 4, 5, 6, and 20.
- 6 Solder wires 5 and 6 together and connect them to pin 20. Cover the solder joints with thermofit tube.
- 7 Tape all remaining loose ends, or seal them with thermofit tube.
- 8 Screw the plastic cover back on.

SAFETY INFORMATION

On battery replacement

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

Important notice to service person

Before attempting service on the printer, including disassembling, re-assembling, troubleshooting, and adjustment, read this manual carefully. During performing service, use extreme care to avoid possible electric shock hazard, burn, and human injuries. Make sure the printer is not provided with any safety facilities other than those primarily intended for the safety of users.

PREFACE

This manual contains information for providing service and maintenance for the following Kyocera printer models:

FS-1600/FS-1600A/FS-1600+ and FS-3600/FS-3600A/FS-3600+.

Both 1600 and 3600 series feature the 600-dpi printing resolution; series 1600 is the 10-ppm version and series 3600 is the 18-ppm version. Models version A are destined for US/Canada. Models version + provide compliance to Simple Network Management Protocol. This manual is a combined version of service information for all above models. (Detailed information are available in Introduction section of the combined *Ecosys Plus series User's Manual* supplied with the printer.) Unless otherwise specified, descriptions apply to all of these models.

The manual is comprised of the following chapters:

Chapter 1 GENERAL INFORMATION: Includes precautions on servicing, requirements for selection of paper, maintenance, schedule (toner supply), jigs and tools required for servicing (of all previous line-up of Kyocera printers), printer specifications, etc.

Chapter 2 OPERATION OVERVIEW: Explains the theory of printer operation—electrophotography and hardware sections—in detail.

Chapter 3 CONTROLLER OVERVIEW: Provides details on the functions of the main logic controller. Facts about the printer firmware can be referred to in the related PROGRAMMING MANUAL (available separately).

Chapter 4 KIR SYSTEM: Provides the operation theory for Kyocera Image Refinement system. For additional reading.

Chapter 5 DISASSEMBLY: Provides procedures for removing and installing components.

Chapter 6 TROUBLESHOOTING: Describes how to respond to the troubles arisen with the printer using a plenty of easy-to-follow flowcharts.

Appendix A ENGINE TIMING CHARTS

Appendix B PARTS CATALOGS: Includes lists of parts and exploded views of the component used with the printer. The ordering instruction is also provided.

Appendix C SCHEMATIC DIAGRAMS

Legend

Throughout the chapters, **Warning** denotes the precaution which, if ignored, could result in personal injury, and/or irrevocable damage to the printer. **Note** denotes precautions which, if ignored, could result in damage to the printer.