Xerox DocuColor 12 Digital Colour Printer/Copier

User Guide

Safety Notes

The Xerox DocuColor 12 copier/printer and the recommended maintenance supplies have been designed and tested to meet strict safety requirements. Attention to the following notes will ensure the continued safe operation of your copier/printer.

Electrical safety

- Use only the power cord supplied with this equipment.

- Plug the power cord directly into a correctly grounded electrical outlet. Do *not* use an extension cord. If you do not know whether or not an outlet is grounded, consult a qualified electrician

- Do not use a ground adapter plug to connect this equipment to an electrical outlet that lacks a ground connection terminal.

WARNING: You may get a severe electrical shock if the outlet is not correctly grounded.

- Do not place the copier/printer where people may step on or trip on the power cord. Do not place objects on the power cord.

- Do not override or disable electrical or mechanical interlocks.

- Do not obstruct the ventilation openings. These openings are provided to prevent overheating of the machine.

WARNING: Never push objects of any kind into slots or openings on this equipment. Making a contact with a voltage point or shorting out a part could result in fire or electrical shock.

- If any of the following conditions occur, switch off the power to the machine immediately and disconnect the power cord from the electrical outlet. Call an authorized Xerox service representative to correct the problem.

  – The machine emits unusual noises or odors.

  – The power cord is damaged or frayed.

  – A wall panel circuit breaker, fuse, or other safety device has been tripped.

  – Liquid is spilled into the copier/printer.

  – The machine is exposed to water.

  – Any part of the machine is damaged.

Disconnect Device

The power cable is the disconnect device for this equipment. It is attached to the back of the machine as a plug-in device. To remove all electrical power from the machine, disconnect the power cable from the electrical outlet.

Laser safety

CAUTION: Use of controls, adjustments, or procedures other than those specified in this documentation may result in a hazardous exposure to laser radiation.

This equipment complies with international safety standards. With specific regard to laser safety, the equipment complies with performance standards for laser products set by government, national, and international agencies as a Class 1 laser product. It does not emit hazardous light, as the beam is totally enclosed during all phases of customer operation and maintenance.

Maintenance safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation that is supplied with your copier/printer.

- Do not use aerosol cleaners. The use of supplies that are not approved may cause poor performance of the copier/printer, and could create a dangerous condition.

- Use the supplies and cleaning materials only as directed in this manual. Keep all of these materials out of the reach of children.

- Do not remove the covers or guards that are fastened with screws. There are no parts behind these covers that you can maintain or service.

Do not perform any maintenance procedures unless you have been trained to do them by a Xerox representative or unless a procedure is specifically described in one of the copier/printer manuals.

Operational safety

Your Xerox equipment and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.

Your attention to the following safety guidelines will help ensure the continued safe operation of your copier/printer:

- Use the materials and supplies specifically designed for your copier/printer. The use of unsuitable materials may result in poor performance of the machine and possibly a hazardous situation.

- Follow all warnings and instructions that are marked on or supplied with the machine.

- Place the machine in a room that provides adequate space for ventilation and servicing.

- Place the machine on a level, solid surface (not on a thick pile carpet) that has adequate strength to support the weight of the machine.

- Do not attempt to move the machine. A leveling device that was lowered when your machine was installed may damage the carpet or floor.

- Do not locate the machine near a heat source.

- Do not locate the machine in direct sunlight.

- Do not locate the machine in line with the cold air flow from an air conditioning system.

- Do not place containers of coffee or other liquid on the machine.

- Do not block or cover the slots and openings on the machine. Without adequate ventilation, the machine may overheat.

- Do not attempt to override any electrical or mechanical interlock devices.

WARNING: Be careful when working in areas identified with this warning symbol. These areas may be very hot and could cause personal injury.

If you need any additional safety information concerning the machine or materials, contact your Xerox representative.

Ozone safety

This product produces ozone during normal operation. The ozone is heavier than air, and the quantity is dependent on copy volume. Providing the correct environmental parameters, as specified in the Xerox installation procedures, ensures that concentration levels meet safe limits.

If you need additional information about ozone, request the Xerox publication, *OZONE*, 600P83222, by calling 1-800-828-6571 in the USA. For a French language version, call 1-800-828-6571 in the USA, then press 2.

Notices

Radio Frequency Emissions

FCC

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 communications. 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.

Changes or modifications to this equipment not specifically approved by the Xerox Corporation may void the authority granted by the FCC to operate this equipment.

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

In Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as defined in the Radio interference regulations of Industry Canada.

FCC

The following applies to the product when equipped with the Token Ring or Banyan Vines connectivity options:

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/her own expense.

Changes or modifications to this equipment not specifically approved by the Xerox Corporation may void the user's authority to operate this equipment.

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

In Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as defined in the Radio interference regulations of Industry Canada.

Safety Extra Low Voltage Approval

The Xerox DocuColor 12 copier/printer is in compliance with various governmental agencies and national safety regulations. All system ports meet the Safety Extra Low Voltage (SELV) circuits for connection to customer-owned devices and networks. Additions of customer-owned or third-party accessories that are attached to the copier/printer must meet or exceed the requirements listed above. All modules that require external connection must be installed per the DocuColor 12 installation procedure.

Certifications . . . in Europe

The CE marking that is applied to this product symbolizes Xerox Europe's Declaration of Conformity with the following applicable Directives of the European Union as of the dates indicated:

January 1, 1995: - Council Directive 73/23/EEC amended by Council Directive 93/68/EEC, approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: - Council Directive 89/336/EEC, approximation of the laws of the member states related to electromagnetic compatibility.

Changes or modifications to this equipment not specifically approved by Xerox Europe may void the user's authority to operate the equipment.

Shielded cables must be used with this equipment to maintain compliance with the EMC Directive 89/336/EEC.

This equipment is not primarily intended for use in a domestic environment.

A full declaration, defining the relevant Directives and referenced standards, can be obtained from your Xerox Europe representative.

WARNING: In order to allow this equipment to operate in proximity to Industrial, Scientific and Medical (ISM) equipment, the external radiation from ISM equipment may have to be limited or special mitigation measures taken.

The following applies to the product when equipped with Token Ring or Banyan Vines connectivity options:

WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Changes or modifications to this equipment not specifically approved by Xerox Europe may void the user's authority to operate the equipment.

Shielded cables must be used with this equipment to maintain compliance with the EMC Directive 89/336/EEC.

It's Illegal . . . in the USA

Congress, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such copies.

1. Obligations or Securities of the United States Government, such as:

    Certificates of Indebtedness   National Bank Currency

    Coupons from Bonds   Federal Reserve Bank Notes

    Silver Certificates   Gold Certificates

    United States Bonds   Treasury Notes

    Federal Reserve Notes   Fractional Notes

    Certificates of Deposit   Paper Money

    Bonds and Obligations of certain agencies of the government, such as FHA, etc.

    Bonds. (U.S. Savings Bonds may be photographed only for publicity purposes in connection with the campaign for the sale of such bonds.)

    Internal Revenue Stamps. (If necessary to copy a legal document on which there is a canceled revenue stamp, this may be done, provided the reproduction of the document is performed for legal purposes.)

    Postage Stamps, canceled or uncanceled. (For philatelic purposes, Postage Stamps may be photographed, provided the reproduction is in black and white and is less than 75% or more than 150% of the linear dimensions of the original.)

    Postal Money Orders.

    Bills, Checks, or Drafts of money drawn by or upon authorized officers of the United States.

    Stamps and other representatives of value, of whatever denomination, which have been or may be issued under any Act of Congress.

2. Adjusted Compensation Certificates for Veterans of the World Wars.

3. Obligations or Securities of any Foreign Government, Bank, or Corporation.

4. Copyrighted material, unless permission of the copyright owner has been obtained or the copying falls within the "fair use" or library reproduction rights provisions of the copyright law. Further information of these provisions may be obtained from the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.

5. Certificates of Citizenship or Naturalization. (Foreign Naturalization Certificates may be photographed.)

6. Passports. (Foreign Passports may be photographed.)

7. Immigration Papers.

8. Draft Registration Cards.

9. Selective Service Induction Papers that bear any of the following Registrant's information:

   Earnings or Income   Dependency Status

   Court Record   Previous military service

   Physical or mental condition

   Exception: U.S. Army and Navy discharge certificates may be photographed.

10. Badges, Identification Cards, Passes, or Insignia carried by Military or Naval personnel, or by members of the various Federal Departments, such as FBI, Treasury, etc. (unless photograph is ordered by the head of such department or bureau.)

   Copying the following is also prohibited in certain states:
   Automobile Licenses - Drivers' Licenses - Automobile Certificates of Title.

   The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

It's Illegal . . . in Canada

Parliament, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fines or imprisonment may be imposed on those guilty of making such copies.

1. Current bank notes or current paper money.

2. Obligations or securities of a government or bank.

3. Exchequer bill paper or revenue paper.

4. The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law.

5. Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queen's Printer for Canada, or the equivalent printer for a province).

6. Marks, brands, seals, wrappers or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, Commission or agency established by the Government of Canada or of a province or of a government of a state other than Canada.

7. Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada.

8. Documents, registers or records kept by public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof.

9. Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner.

10. The above list is provided for your convenience and assistance, but it is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

Environmental Notices . . . in the USA and Europe

As an ENERGY STAR® partner, Xerox Corporation has determined that this copier/printer model meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a US registered trademark.

The ENERGY STAR program is a team effort between the Environment Protection Agency and the office equipment industry to promote energy-efficient personal computers, monitors, printers, fax machines and copiers. Reducing the energy consumption of this equipment will help combat smog, acid rain and long-term changes to the climate by decreasing the emissions that result from generating electricity.

Environmental Notices . . . in Canada

As a participant in the Environmental Choice program, Xerox Corporation has determined that this copier/printer model meets the Environmental Choice guidelines for energy efficiency.

Environment Canada established the Environmental Choice program in 1988 to help consumers identify environmentally responsible products and services. Copier, printer and fax products must meet energy efficiency and emissions criteria, and exhibit compatibility with recycled supplies. Currently, Environmental Choice has more than 1600 approved products and 140 licensees. Xerox has been a leader in offering EcoLogo approved products. In 1996, Xerox became the first company licensed to use the Environmental Choice EcoLogo for its copiers printers, and fax machines.

Contents

7. Output Formats 7-1

8. Job Assembly 8-1

9. Paper 9-1

10. Duplex Automatic Document Feeder..................................... 10-1

1.   About this manual

The DocuColor 12 may be used as a standalone copier, as illustrated in Figure 1, or it may be combined with an external Digital Front End to function as a copier/printer.

Therefore, this manual refers to the unit as either the "DocuColor 12," the "DocuColor 12 copier/printer," or simply the "copier/printer."

For more information about how the unit functions as a printer, refer to the *DocuColor 12 Printer User Guide*.

This chapter introduces the organization, contents, and conventions of this manual.

Figure 1: The DocuColor 12

1

Manual contents

This manual is divided into 12 chapters, as described below.

KEY POINT: Features and options discussed in each chapter reflect the factory default settings. You may see different settings, depending on the options your System Administrator has selected in Tools mode.

2. Getting to know your DocuColor 12

Chapter 2 provides basic information about the DocuColor 12. It includes an introduction to the Control Panel, Touch Screen, Duplex Automatic Document Feeder and Document Glass, and Paper Trays and Paper Path.

It also reviews such topics as audio tones, dry ink (toner), white border edges, ground fault protection, connectivity and options and accessories.

3. Making copies

Chapter 3 provides the procedures for powering the copier/printer on and off. It also includes a brief overview of the process of making copies.

The overview serves a two-fold purpose:

- It reviews the basic process of making copies, including selecting features and options, placing the original on the Document Glass or in the DADF, pushing the START button, and removing your output.

  Information such as positioning the original document on the Document Glass or in the DADF is not repeated in later sections unless the feature requires special attention to such details.

- It reviews a number of commonly selected output settings.

For explanations of the various features of the copier/printer or more detailed procedures, turn to the appropriate section in later chapters.

4. Basic Copying

Chapter 4 includes information and procedures for the features that display on the Basic Copying tab:

- Output Colour

- Copy Output

- Reduce/Enlarge

- Paper Supply

5. Added Features

Chapter 5 includes information and procedures for the factory default features that display on the Added Features tab:

- 2 Sided Copying

- Bound Originals

- Margin Shift

- Edge Erase

- Original Size

- Mixed Size Originals

6. Image Quality

Chapter 6 includes information and procedures for the factory default features that determine output quality. These features display on the Image Quality tab:

- Original Type

- Preset Colour Balance

- Lighten/Darken

- Colour Shift and Saturation

- Sharpness

- Variable Colour Balance

7. Output Formats

Chapter 7 includes information and procedures for the four factory default features that affect special copy requirements. These features display on the Output Formats tab:

• Multiple-Up

• Repeat Image

• Transparency Separators

• Invert Image

8. Job Assembly

Chapter 8 includes information and procedures for storing, retrieving, and deleting jobs.

9. Paper

Chapter 9 provides information about paper trays and auto tray switching. It also includes the correct procedures for loading stock into the paper trays and specific information regarding the paper to use in the DocuColor 12.

For more general information about paper, refer to the *Colour Materials Usage Guide*. For specific information about papers tested for use with the DocuColor 12, refer to the *Recommended Materials for the DocuColor 12*.

10. Duplex Automatic Document Feeder

Chapter 10 describes the Duplex Automatic
Document Feeder by providing component names
and functions, document specifications, and an
overview of the document path. Safety
precautions and instructions for document loading
and jam clearance are also provided.

11. Sorter/Mailbox

Chapter 11 describes the optional Sorter/Mailbox
by providing component names and functions,
safety precautions, and instructions for use and
jam clearance.

12. Problem Solving

Chapter 12 provides instructions for clearing
paper jams, and analyzing and solving hardware,
programming, and processor problems. It also
provides a number of solutions for improving
output quality.

13. Technical Information

Chapter 13 provides the specifications, requirements, capabilities, physical characteristics, estimated copy rates, and health and safety information for the copier/printer. Specifications for the DADF and Sorter/Mailbox, as well as a metric conversion chart, are also included.

For more information

This guide should be used in conjunction with the *DocuColor 12 System Administration Guide* and the *Recommended Materials for the DocuColor 12*.

For more information about the DocuColor 12 with a Tier I Digital Front End (DFE) refer to the *DocuColor 12 Printer User Guide*.

For site planning information, refer to the *DocuColor 12 Customer Site Planning Guide*.

Conventions used in this manual

Descriptions of features and options generally precede procedure steps. You may need to combine several procedures to achieve your desired results.

This manual uses a number of symbols to help you identify various kinds of information. These symbols are described below.

The 1, 2, 3 symbol indicates the beginning of a procedure. Be sure to follow steps carefully in the order given.

NOTE: Notes provide extra information that may be helpful to your understanding or performance of procedures.

KEY POINT: The key symbol draws your attention to important additional information, hints, or tips.

WARNING: This symbol alerts you to an operating or maintenance procedure, practice, or condition, that, if not strictly observed, could result in injury or loss of life.

WARNING: This Hot Surface symbol warns you of an area that may be very hot and would cause personal injury if touched.

CAUTION: This symbol alerts you to an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to or destruction of equipment or loss of data.

2. Getting to know your DocuColor 12

Introduction

The DocuColor 12 copier/printer, Figure 1, provides full-colour, digital imaging at approximately 12 copies per minute, depending upon the paper size and the feeding orientation of the paper. It includes an anti-counterfeit function as standard equipment.

Figure 1: The DocuColor 12 Copier/Printer

Control Panel

Use the Control Panel to program the copier/
printer for individual jobs.
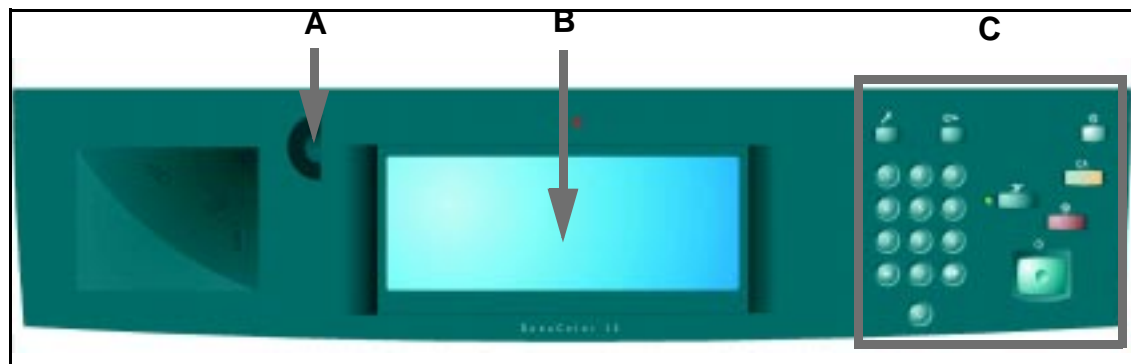
Figure 2: Control Panel

As illustrated in Figure 2, you will use the Contrast
dial (A) on the left side of the Touch Screen (B) to
make the Touch Screen brighter or darker. Turning
the dial clockwise darkens the screen and turning
it anti-clockwise lightens the screen.

The buttons on the right side of the Control Panel
(C) and the electronic buttons on the Touch
Screen are used to enter the job requirements.

Control Panel Buttons

The function of the Control Panel hard buttons is described below. The numbers before the descriptions correspond to the numbered call-outs in Figure 3.

Figure 3: Control Panel buttons
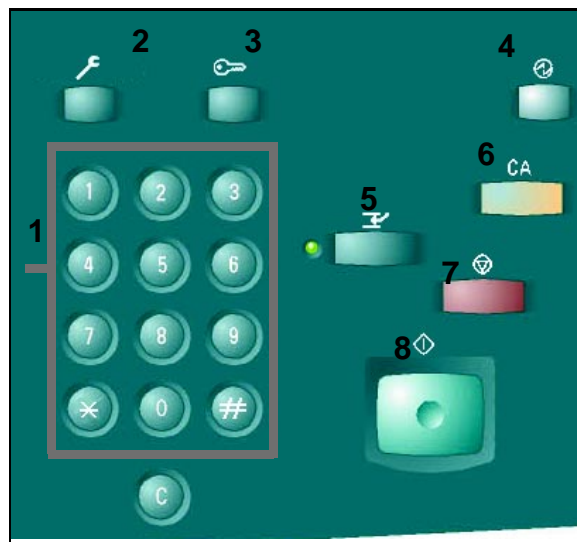
1 **Numeric Keypad** - Buttons 0 to 9 are used to select a copy quantity up to the value set in the Tools mode. These buttons are also used to enter an access number.

2 **Administration** - This button is used by the System Administrator.

3 **Access** - The copier/printer can be activated in either the normal copying mode (without an access number) or in the Access Number mode.

If the copier/printer is in the Access Number mode, use the **Access** button to bring up the Access screen and enter your access number before trying to make any copies. Press the **Access** button after you complete your job to exit the user screens and ensure that no one else can make copies using your access number.

4 **Low Power button** - Press this button to initiate the Low Power mode. The DocuColor 12 will also go into Low Power mode automatically if it is not used for a length of time specified by the System Administrator in the Tools Mode.

The Low Power mode enables the DocuColor 12 to use less power than when it is in Ready mode. Press the **Low Power** button again to bring the copier/printer into a warm-up cycle.

5 **Interrupt** - Press this button to stop the copier/
printer during the copy process. The copier/printer
will complete the copy in process and then stop.
There are two indications the job has been
interrupted:

- The copier/printer displays a message
  indicating that Job Interrupt has been
  selected, and it is ready to copy.

- The indicator light flashes to acknowledge that
  the Interrupt button has been pressed. It
  continues to flash until the copier/printer
  interrupts the job in process. When the
  Interrupt indicator light is on continuously (not
  flashing), a new job can be programmed.

After all interrupting jobs have been completed,
press the **Interrupt** button again to exit the
Interrupt mode and to return to the first job.

NOTE: Interrupt should not be used when the
machine is in a fault condition (except for Image
Quality faults, alerts, or when a message indicates
the job is incomplete) or with the following types of
jobs:

- Repeat Image

- Multiple-Up

Interrupt should also not be used when you are
using the Stored Jobs feature or when you are on
the Access Number Entry screen or in Tools
mode.

6 **Clear All** - Press this button to clear all programming, including the copy quantity. All features are reset to their respective default settings. When the Clear All button is selected in Interrupt mode, default settings are applied only to the interrupting job.

CA

NOTE: Clear All is not applied if a job is in progress or if the machine is displaying a Jam or Interlock Open screen.

7 **Stop** - When you select the **Stop** button, the copier/printer completes the copy in process and then stops. A message asking if you want to continue the job (Press the **Clear** button to change options for the job) is displayed on the Touch Screen.

8 **Start** - Press this button to start a copy job or to continue the copy process.

The copier/printer starts the first job automatically if the **Start** button is pressed during warm-up. An indicator lamp lights and the Touch Screen displays a message to indicate that the copier/printer will start automatically.

To cancel the Automatic Start feature before the copier/printer is done warming up, press the **Stop** button.

C

9 Clear (**C**) - When a screen with numeric entry is displayed, pressing the **Clear** (**C**) button cancels all the information previously entered and displays the default value. Use this button in the following cases:

- To clear the copy quantity that was selected and to reset the quantity to 1.

- To restore the copier/printer to the programming condition when a fault or a jam occurs and a message displays on the Touch Screen. Further programming selections can be entered without clearing the previous selections. (Only the copy quantity that was selected is reset to 1.)

- To cancel all the information previously entered and display blank fields ready for new data entry on the Access Number Entry screen.

  When the **Clear** button is selected while the copier/printer is in Interrupt mode, it is applied only to the interrupting job.

  When the **Clear** button is selected with the Stored Job feature, it is applied only to the selected job.

NOTE: Clear is not applied if a job is incomplete or the machine is displaying a Jam or Interlock Open screen.

Touch Screen

The Touch Screen can be used to select features and options that specify what kind of copy output you desire.

It also displays messages that indicate the copier/printer status during idle, run, or fault conditions.

Message area

The message area at the top of the screen, Figure 4, contains space for messages concerning the copier/printer status, programming conflicts, and errors. The messages may also provide instructions for the operator.

Copy quantity

The copy quantity entered using the keypad appears in the upper-right corner of the message area, Figure 4.

Message area　　　　**Copy quantity**
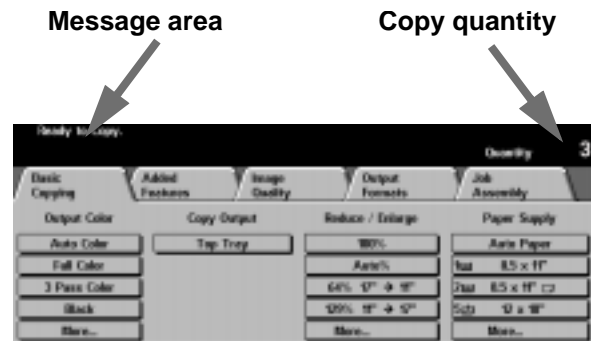
Figure 4: Touch Screen with Basic Copying Tab displayed

2

Feature tabs

The Touch Screen displays five feature tabs you use to program the copier/printer:

- Basic Copying

- Added Features

- Image Quality

- Output Formats

- Job Assembly

The five feature tabs on the Touch Screen contain the programmable selections for each feature.

Figure 5 illustrates the default configuration for the Basic Copying tab.

KEY POINT: Features and options discussed in each chapter follow the factory default settings. You may see different settings, depending on the options your System Administrator has selected in Tools mode.

Ask your System Administrator for more information regarding these selections, or refer to the "Tools Mode" chapter of the *DocuColor 12 System Administrator Guide.*

Figure 5: Basic Copying Tab

Touch Screen button types and functions

Touch Screen buttons are selectable and shadowed. These buttons change appearance when selected. The standard button types are described and illustrated below:

Some buttons contain a feature name or feature choice.

Option buttons

Some features have more options associated with them than can be displayed on one screen. Touching a **More...** button displays options on another screen or simply displays a screen with all relevant options when the button is pressed.

Some of these option buttons may have words on them, as illustrated in Figure 6.
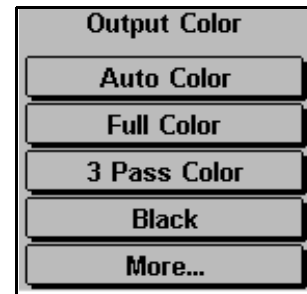
Figure 6: Sample labelled feature and option buttons

Icon buttons

Some feature and option buttons display icons.

Other option buttons are blank with words or graphics to the side, as illustrated in Figure 7. Touch the button to select the option described.
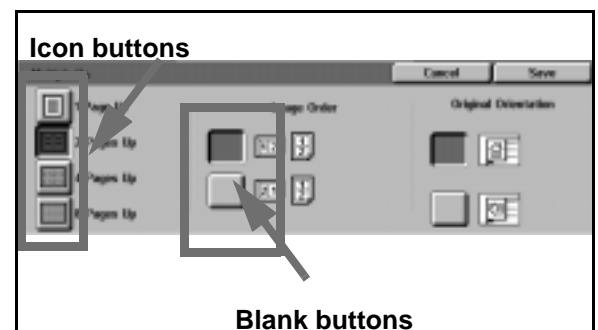
Figure 7: Sample icon and blank feature and option buttons

Arrow buttons

Arrow buttons allow you to change values on the Control Panel for features such as Variable Reduce/Enlarge, as illustrated in Figure 8.

Touch the up or right arrow to increase the value; touch the down or left arrow to decrease the value.

Changes are displayed in the value boxes.

Figure 8: Arrow buttons

Figure 9: Fixed selection buttons

Figure 10: Cancel and Save buttons

Fixed selection buttons   Fixed value selection buttons allow you to select preset incremental changes for features, such as Lighten/Darken, as illustrated in Figure 9.

Cancel and Save buttons   The **Cancel** button, Figure 10, allows you to cancel a feature or selected feature options without saving them.

The **Save** button, Figure 10, allows you to save a selected feature or options.

Using the Touch Screen
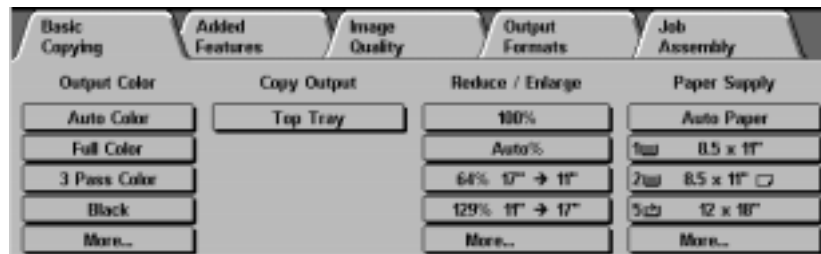
Figure 11: The Touch Screen

The copier/printer defaults to the Basic Copying tab, as illustrated in Figure 11. Touch the visible part of the tab to access the features for Added Features, Image Quality, Output Formats, or Job Assembly.

NOTE: The features available in each tab are assigned by your System Administrator using the Tools mode. Therefore, the features in the tabs on your copier/printer may vary from the screen samples shown in this manual.

Touch the desired button or icon to select a feature. The selected button is highlighted.

Selecting some of the feature buttons causes another screen to display. These screens contain additional information and selections for that feature. Selecting some of the options on these screens displays additional detail screens.

Audio tones

The copier/printer provides three types of audio tones to assist the operator in selecting features and functions. The System Administrator can adjust the volume of some of the audio tones using Tools mode.

- When a selection is made, the copier/printer beeps once when a button is touched to acknowledge the input.

- A triple beep tone sounds when a conflict occurs between the selections already made and the one being attempted. A triple beep also occurs when a feature is not available.

- The attention tone consists of a series of longer beeps. The attention tone sounds when the copier/printer warm-up cycle is complete.

Document Feeder and Document Glass

Duplex Automatic Document Feeder (DADF)

The Duplex Automatic Document Feeder (DADF), Figure 12, acts like a Document Cover by shielding the Scanner from external light.

This is especially important when you select the Auto Colour option. The copier/printer does not operate with the Duplex Automatic Document Feeder open when the Auto Colour option is selected.

KEY POINT:

- Do not use excessive force to press down on the Duplex Automatic Document Feeder.

- If the Duplex Automatic Document Feeder must be open during the scanning, the Output Colour feature cannot be set to Auto Colour. You must make a different selection.

After you place documents face up in the Duplex Automatic Document Feeder, ensure that the paper guide is against the document, and press the **Start** button to begin the scan operation.

Figure 12: Duplex Automatic Document Feeder

Document Glass

After you have selected the desired features, you should place the original document onto the Document Glass. Raise the Duplex Automatic Document Feeder and place (register) the document in the correct orientation on the Document Glass for long edge feed or short edge feed, as illustrated in Figure 13.

NOTE: You can set the orientation on a number of user screens or the System Administrator can change the default orientation in Tools Mode.

The document must be face down and in the upper-left corner of the Document Glass.

Lower the Duplex Automatic Document Feeder and press the Start button to begin the scan operation.

KEY POINT:

- When a document is scanned short edge first, but the requested paper tray holds paper so it will print long edge first, the Auto Rotation feature will cause a document to be rotated 90°. If the output is to be 2-sided, the second side will be rotated 270° to maintain head-to-head output.

- The maximum scanned image size is 11 x 17 inches or A3. To copy an image of this size onto 12 x 17.7 inch or SRA3 paper, you must select 102% enlargement.
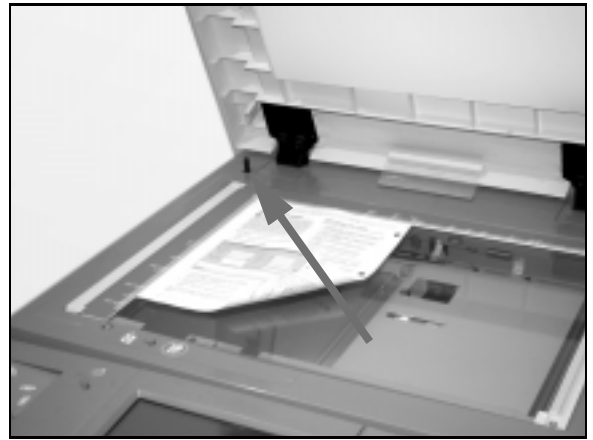
Figure 13: Registering a document on the Document Glass

Auto Image Rotation

The DocuColor 12 offers an automatic rotation feature for A4 original documents input from both the Duplex Automatic Document Feeder and the Document Glass.

If the copier/printer detects that the image area of a document that is being scanned short edge first will not fit on the paper, it will automatically rotate the image 90° to ensure that the entire image appears on the output (long edge first).

Therefore, if you are scanning an A4 original document short edge feed and you have requested A4 long edge feed paper, the image will be rotated 90° to provide the entire image on the output.

If you request 2 Sided output, Side 1 will be rotated 90° and Side 2 will be rotated 270° to ensure head-to-head output.

KEY POINT: Auto Rotation is not performed for documents that are scanned long edge first.

To disable this feature, contact your Xerox Service Representative.

Paper Trays and Paper Path

Paper Trays

Paper Trays 1, 2, 3, and 4 are located at the lower front of the copier/printer, as illustrated in Figure 14. Paper Tray 5 is on the left of the copier/printer, as illustrated in Figure 14 and Figure 15.

Paper Tray 1 can accommodate 8.5 x 11 inch, A4, A5, or B5 paper.

Paper Trays 2, 3, and 4 can accommodate an assortment of standard paper sizes, from 8 x 10 inch through 11 x 17 inch, and B5 through A3.

NOTE: Paper Trays 2, 3, and 4 can also accommodate 12 x 18 inch (305mm x 457mm) paper through a special, optional tray setup procedure performed by a Xerox service representative. If you are interested in this option, contact your Xerox service representative.

Figure 14: Paper Trays 1, 2, 3, 4

Paper Tray 5 (sometimes called the Bypass Tray or Multiple Sheet Inserter) is located on the left side of the copier/printer. Tray 5 can accommodate non-standard paper sizes up to 12 x 18 inches or 12.6 x 17.7 inches (SRA3).

Figure 15: Paper Tray 5

Paper Path Areas

1 Paper Tray 1

2 Paper Tray 2

3 Paper Tray 3

4 Paper Tray 4

5 Paper Tray 5

6 Preregistration Area

7 Transfer Belt

8 Fuser

9 Output Tray or Sorter/Mailbox

10 Duplex path (10a, 10b, 10c)

As illustrated in Figure 16, the paper is fed from the selected paper tray (1-5) to the Paper Transport rollers.

The Paper Transport rollers deliver the paper to the Preregistration Area (6) in the Paper Path Module.

From the Preregistration Area, the paper is registered onto the Transfer Belt (7), and the image is transferred.

The paper proceeds to the Post Transfer Area and into the Fuser (8), where the image is fixed to the paper permanently.

From the Fuser, the paper passes either through the Post Fuser Area and into the Sorter/Mailbox (9) or into the duplex path (10a, 10b, 10c).
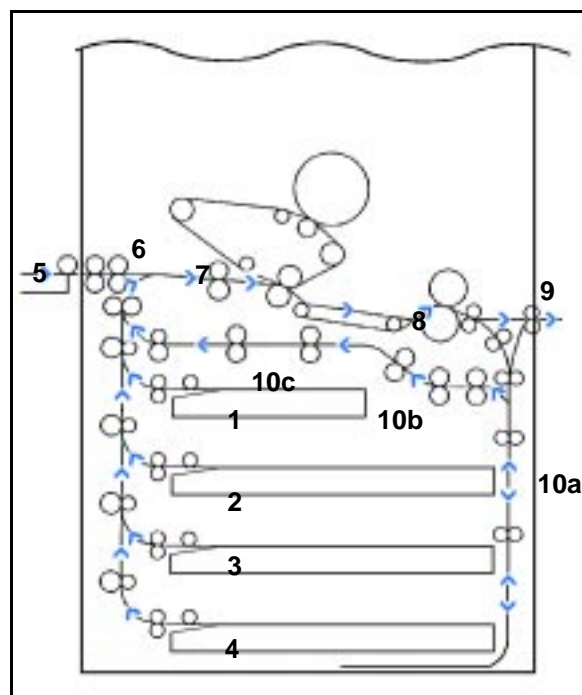
Figure 16: Paper Path

Output delivery

Output is delivered differently, depending on the configuration of your system and on the job options you choose.

If you use the Document Glass to input the original document, the requested number of copies will be delivered, face up, to the Output Tray or Offset Catch Tray on the right side of the copier/printer.

If you use the Duplex Automatic Document Feeder to input the original document, the output will be delivered in one of the following ways. (The example uses a three-page job.)

- Basic, single-copy output is delivered face down in 1, 2, 3 order.

- Multiple-copy output is delivered to the Output Tray face up with copies of the first page on the bottom and the last page on top, as, for example, in 3/3/3, 2/2/2, 1/1/1 order.

- For a multiple-copy job in a configuration with a Sorter/Mailbox, one set of output is delivered, face down, to each of three separate bins in 1, 2, 3 order.

Dry ink (Toner)

The DocuColor 12 copier/printer has a four-colour development system that uses a combination of dry inks (toners) to produce the output colours. The dry ink (toner) colours are magenta, cyan, yellow, and black.

Each dry ink (toner) is contained in a dry ink cartridge.

When dry ink (toner) is running low in a particular cartridge, the Touch Screen displays a message indicating that it is time to reorder that toner colour. When a cartridge is empty, the Touch Screen displays a message indicating that the cartridge should be replaced. The DocuColor 12 will not make copies using that colour until the cartridge has been replaced.

Refer to the *DocuColor 12 System Administration Guide* for information about replacing the dry ink cartridges.

2

White border edges on copies

All copies made on the DocuColor 12 have white border edges on four sides of the copy, as illustrated in Figure 17. The default No Erase feature removes 2 mm from the lead edge image and the trail edge image.

If the white border edges result in image loss on your copies, select the Copy All option in the Reduce/Enlarge feature to minimize the image loss.

Refer to the Edge Erase feature in the "Added Features" chapter for more information about edge erase.

Figure 17: Copy with white border edges

Ground fault protection

The DocuColor 12 copier/printer is equipped with a safety feature called a Ground Fault Protector, Figure 18. This device removes all electrical power to the copier/printer if a fault is detected in the power supply to the copier/printer.

If power is interrupted to the copier/printer, perform the following:

Figure 18: Ground Fault Protector

1 Locate the Ground Fault Protector on the back of the copier/printer in the lower left corner.

2 Flip the switch up if the device has been tripped and the switch is in the Off (down) position.

If the device interrupts power to the copier/printer again, or if power has not been restored by the above procedure, call your Xerox service representative.

CAUTION: The Fuser Roll remains in a cammed-up position if power to the copier/printer is interrupted while the copier/printer is in use. If the Fuser Roll remains in the cammed-up position for a prolonged period of time, the Fuser Roll can be damaged and copy quality defects can occur. To prevent any damage, the copier/printer should be powered on and a copy/print made as soon as the power is restored. The Fuser Roll will not be released from the cammed-up position until the power is restored, the Power Switch is in the On position, and the Start button is pressed again.

Connectivity

Your DocuColor 12 copier can be used as a printer when connected to an external Digital Front End (DFE). Therefore, the DocuColor 12 is referred to as a copier/printer throughout this manual and the *DocuColor 12 System Administration Guide.*

Contact your Xerox representative for more information on the benefits of using a DFE to network your DocuColor 12.

If your DocuColor 12 is already connected to a DFE, refer to the documentation that was supplied with the DFE for installation instructions, setup procedures, and feature descriptions for your DocuColor 12 copier/printer.

2

Moving the Copier/Printer

The DocuColor 12 copier/printer should not be
moved after it has been installed. Improperly
moving the copier/printer may damage the
equipment, carpet or floor.

If you must move the copier/printer, please ask
your Xerox representative to assist you.

2

Options and accessories

Table 1 lists the optional equipment that is available for the DocuColor 12 copier/printer.

Option	Comment	For more information
Offset Catch Tray (OCT)	The OCT can hold up to 500 sheets of 20 lb (80 gsm) paper.	Contact your Xerox representative.
Document Glass Cover	Replaces the Duplex Automatic Document Feeder.	Contact your Xerox representative.
Sorter/Mailbox	The Sorter/Mailbox can function as a 10-bin sorter on the DocuColor 12 (copier only) or as a mailbox on the DocuColor 12 with an external Digital Front End (printer only). It can be used as either a mailbox or a sorter on the copier/printer configuration.	Contact your Xerox representative.
Work Surface Extension	A Work Surface Extension can be added to the DocuColor 12 if it does not have a Duplex Automatic Document Feeder (DADF) or Sorter/Mailbox.	Contact your Xerox representative.

Table 1: DocuColor 12 Options and Accessories

2

2

3. Making Copies

Overview

This chapter includes instructions for powering on and off the DocuColor 12. It also includes a procedure that leads you quickly through a number of features you may want to use in making copies.You can find detailed information about the features and options referred to in this chapter in the chapters that follow.

3

Power on and off

Switching the power off

Press the Power Switch to the Off position to switch the copier/printer off, as in Figure 1. The Touch Screen will go dark.

Allow the copier/printer to remain off for approximately 30 seconds if you will be switching it on again immediately.

Switching the power on

Press the Power Switch to the On position to switch the copier/printer on. A message will display asking you to wait.

After the Power Switch is pressed to On, the copier/printer takes approximately eight minutes to come to a Ready to Make Copies condition. The copier/printer produces colour copies at a rate of approximately twelve copies per minute, depending on the paper size and the feeding orientation of the paper.

NOTE: The copier/printer starts automatically after it comes to the Ready state if the Start button is pressed during warm-up. A message displays to indicate that the automatic start feature is activated. Press the **Stop** button to cancel the automatic start feature.

CAUTION: The Fuser Roll remains in a cammed-up position if power to the copier/printer is interrupted while the copier/printer is in use. If the Fuser Roll remains in the cammed-up position for a prolonged period of time, the Fuser Roll can be damaged and copy quality defects can occur. To prevent any damage, the copier/printer should be powered on and a copy made as soon as the power is restored. The Fuser Roll will not be released from the cammed-up position until the power is restored, the Power Switch is in the On position, and the Start button is pressed again.

Figure 1: Power Switch - Off Position

Loading Paper

Paper Trays 1, 2, 3, or 4

1₂ 3. . .

1 Pull out the paper tray.

2 Place the appropriate paper into the tray, as illustrated in Figure 2. Adjust the paper guides.

The paper level must not be above the MAX fill line, as indicated in the tray.

3 Close the paper tray slowly to avoid skewing the paper stack. Ensure that the paper tray is fully closed.

Refer to the section, "Paper and Paper Trays," for more detailed information.

KEY POINT:

- For the best results, use only the paper sizes and paper weights indicated in the section, "Paper and Paper Trays."

- Adjusting the paper guides indicates the paper size to the copier/printer.

- It is important that you straighten the paper stack each time the Paper Tray is opened. Close the Paper Tray slowly to avoid having to reposition the paper stack. This ensures that the paper is in the correct position when the paper tray is in the operating position.

Figure 2: Loading a Paper Tray

3

Paper Tray 5

Paper Tray 5 is located on the left side of the copier/printer. Paper Tray 5 is used for transparencies, heavy weight papers, and non-standard size paper. A maximum of 100 sheets of 20 lb (80 gsm) paper may be loaded into Paper Tray 5.

1₂ 3. . .

1 To access Paper Tray 5, open the cover and extend the tray.

2 Place the paper on the tray. Ensure that the paper is all the way in and adjust the paper guides, as illustrated in Figure 3.

Do not fill Paper Tray 5 above the fill line on the paper guide.

NOTE: Remove all copy stock from Paper Tray 5 when the job is complete. Dust and moisture can affect stock, causing copy quality defects.

Figure 3: Loading Paper Tray 5

Quick copy

The procedure below helps you make simple copies without changing any options.

¹₂ 3...

Figure 4: Placing a document on the Document Glass

1 Press the **Clear All** (**CA**) button to clear any previous programming.

2 Perform one of the following:

- Raise the Duplex Automatic Document Feeder (DADF) or Document Glass Cover and place the document face down onto the Document Glass, as in Figure 4.

  Make sure the document lies against the registration area at the left rear corner of the glass. The Registration area is identified with an arrow.

  Lower the Duplex Automatic Document Feeder (DADF) or Document Glass Cover.

- If you have a Duplex Automatic Document Feeder, place the document face up into the DADF Tray, as in Figure 5. The Document Feed Lamp lights when the document is in the correct position. Ensure that the paper guide is against the original document.

3 Press the **Start** button.

4 When copying is completed, perform the following:

- Remove the copies from the Output Tray or Sorter/Mailbox on the right side of the copier/printer.

- Remove the original document(s) from the Document Glass or Original Catch Tray of the DADF.

Document Feed Lamp

Figure 5: Placing a document in the DADF Feeder Tray

Making copies using features

The feature tabs on the Touch Screen (Figure 6) enable you to configure the copier/printer to suit your copying needs.

The procedure below leads you quickly through a number of features you may want to use in making copies. It assumes that the feature tabs are in the default configuration. You can find detailed information about the features and options referred to in this section in the chapters that follow.
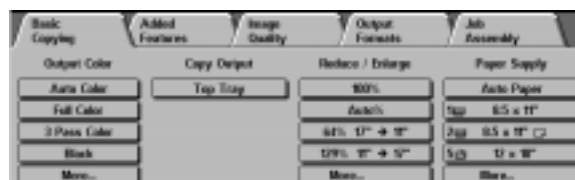
Figure 6: Touch Screen with Basic Copying tab in Default Configuration

$1_2 3...$

3

1   Press the **Clear All** (**CA**) button to clear any previous programming.

Use any of steps 2 through 11 that apply to your job and desired output.

2   Select the required quantity.

• Use the Keypad to enter the quantity.

• Press the **Clear** (**C**) button on the Numeric Keypad to clear an incorrect quantity.
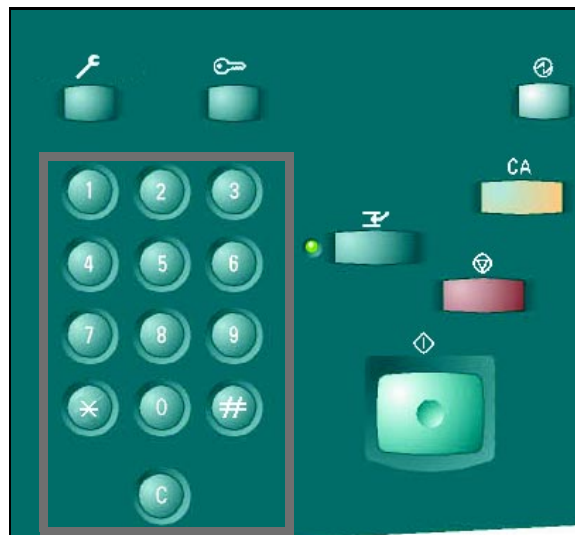
Figure 7: Keypad and Clear Key

3 Select an option in the Output Colour feature if a setting other than the default, Auto Colour, is desired. Auto Colour enables the copier/printer to select either Full Colour or Black and White to use for the output.

Perform one of the following:

- Touch the desired Output Colour option on the Basic Copying tab.

- Touch **More...** to see additional options, as illustrated in Figure 8.

  Touch the desired option and touch the **Save** button to return to the Basic Copying screen.

Figure 8: Output Colour screen

4 If there is a Sorter/Mailbox, touch the appropriate Copy Output option:

- Touch **Auto Output** to direct collated output to the Offset Catch Tray.

- Touch **Collated** to direct up to 10 sets of collated output to the Sorter/Mailbox Bins.

- Touch **Uncollated** to direct uncollated output to the lower Offset Catch Tray.

  If the job has more than 10 original documents, production will pause after the tenth set has been delivered until you clear the bins of all output and press **Start**.
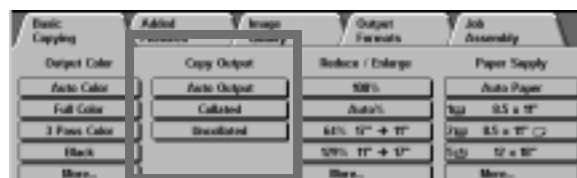
KEY POINT:

- Transparencies may not be used for two-sided copying.

- Transparencies cannot be delivered to the Sorter/Mailbox bins. They must be directed to the Catch Tray.

Figure 9: Copy Output feature

5 Select an option in the Reduce/Enlarge feature if a setting other than the default (100%) is desired.

Perform one of the following:

- Touch the desired Reduce/Enlarge option on the Basic Copying tab.

- Touch **More...** to see additional options, as illustrated in Figure 10.

  Touch the desired option and touch the **Save** button to return to the Basic Copying screen.

Figure 10: Reduce/Enlarge screen

6 Select an option in the Paper Supply feature if a tray other than the default (Auto Paper) is desired.

Perform one of the following:

- Touch the desired Paper Supply option on the Basic Copying tab.

- Touch **More...** to see additional options, as illustrated in Figure 11.

  Touch the desired option and touch the **Save** button to return to the Basic Copying screen.

Figure 11: Paper Supply screen

7 Touch the Added Features tab and touch the Original Size icon to display the Original Size screen, Figure 12.

Touch a standard option for Original Size or use the horizontal and vertical arrows to set a non-standard size if a setting other than the default (Auto Detected) is desired.

Touch the **Save** button to return to the Added Features tab.

Figure 12: Original Size screen

8 On the Added Features tab, touch the **2 Sided Copy** button and perform one of the following.

Figure 13: 2 Sided Copying options

- If you have a DADF, touch the desired option from those illustrated in Figure 13:

  - **1 to 1 Sided** icon for default one-sided copies

  - **1 to 2 Sided** icon for two-sided copies from one-sided input, as illustrated in Figure 14. Touch **Flip on Long Edge** for two-sided, head-to-head output, as for books. Touch **Flip on Short Edge** for two-sided, head-to-toe output, as for calendars.

Figure 14: 1 to 2 Sided Copying option
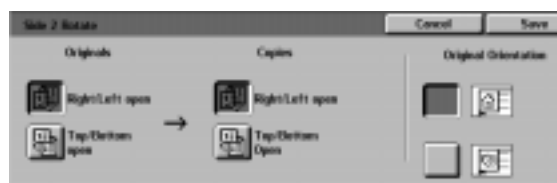
Figure 15: Side 2 Rotate screen

  - **2 to 2 Sided** icon for two-sided copies from two-sided input.

    Select the Side 2 Rotate button to display the Side 2 Rotate screen, illustrated in Figure 15. Touch **Right/Left open** for two-sided, head-to-head output, as for books. Touch **Top/Bottom open** for two-sided, head-to-toe output, as for calendars.

  - **2 to 1 Sided** icon for one-sided copies from two-sided originals, illustrated in Figure 16. Touch **Flip on Long Edge** if your original documents are two-sided, head-to-head. Touch **Flip on Short Edge** if your original documents are two-sided, head-to-toe output.

Figure 16: 2 to 1 Sided Copying option

3

- If you not have a DADF, perform one of the following:

  – Touch the **1 Sided** icon for default one-sided copies.

  – Touch the **2 Sided** icon to display the 2 Sided Copy screen. Under Side 2 Rotate, perform one of the following:

  Touch **Flip on Long Edge** for two-sided, head-to-head output, as for books.

  Touch **Flip on Short Edge** for two-sided, head-to-toe output, as for calendars.

Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

3

9   Touch the Image Quality tab and touch the **Original Type** icon to display the Original Type screen, Figure 17.

Touch an option for Original Type if a setting other than the default (Photo & Text) is desired.

Touch the **Save** button to return to the Image Quality tab.
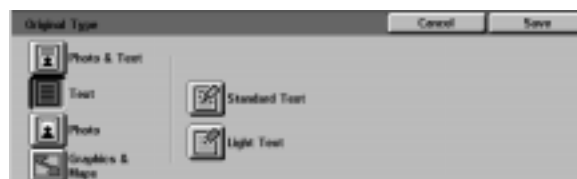
Figure 17: Original Type screen with Text option selected

10 On the Image Quality tab, touch the **Lighten/ Darken** icon to display the Lighten/Darken screen, as illustrated in Figure 18.

Perform one of the following:

- Touch the **Auto Contrast** icon to have the copier/printer determine the darkness or lightness of the original document and adjust the output darkness or lightness automatically.

- Using the illustrated bar as a guide, touch the button under the section that best reflects the desired degree of darkness or lightness.

Touch the **Save** button to return to the Image Quality tab.

11 On the Image Quality tab, touch the **Preset Colour Balance** icon to display the Preset Colour Balance screen, illustrated in Figure 19.

Touch the appropriate button for the desired colour balance.

Touch the **Save** button to return to the Image Quality tab.

12 If other features are desired, select the appropriate feature tab and feature button on the Touch Screen. Refer to the following chapters for more information.

Figure 18: Lighten/Darken screen

Figure 19: Preset Colour Balance screen

3

13 Perform one of the following:

- Raise the Duplex Automatic Document Feeder (DADF) or Document Glass Cover and place the document, face down, on the Document Glass, as in Figure 20.

  Ensure that the document lies against the registration area at the left rear corner of the glass. The Registration area is identified with an arrow.

  Lower the Duplex Automatic Document Feeder (DADF) or Document Glass Cover.
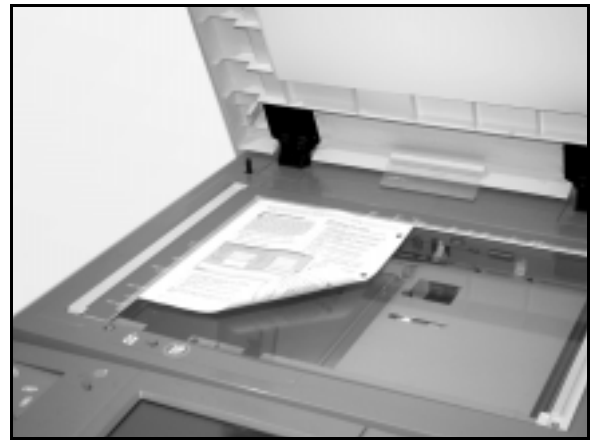
Figure 20: Placing a document on the Document Glass

- If you have a Duplex Automatic Document Feeder, place the document face up into the DADF Tray, as in Figure 21. The Document Feed Lamp lights when the document is in the correct position. Ensure that the paper guide is against the original document.

14 Press the **Start** button.

15 When copying is completed, perform the following:

- Remove the copies from the Output Tray or Sorter/Mailbox on the right side of the copier/printer.

- Remove the original document(s) from the Document Glass or Original Catch Tray of the DADF.

- If you used Paper Tray 5, remove the copy stock from Tray 5 and store it properly.

Document Feed Lamp
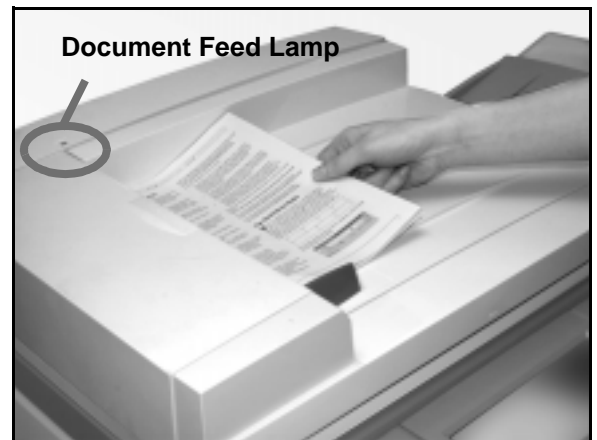
Figure 21: Placing a document in the DADF Feeder Tray

Preserving your colour output

Colour output, like black and white output, should be handled and stored carefully to preserve its appearance and usability. Your colour output, which is made from colour dry inks (toners), requires a little special attention. To help preserve the fidelity of your colour output, Xerox recommends that you consider the following:

Adhesive tapes and adhesives

Some adhesive tapes and adhesives (glues) contain solvents that may soften or dissolve the colour dry inks (toners). Adhesive tapes and adhesives should be tested on sample output before being applied to your valuable copies or prints. Adhesive tape may also pull off the dry inks (toners) when the tape is removed.

PVC and colour output

If your output comes in contact with PVC and PVC-type (vinyl) plastics, the dry inks (toners) may soften and transfer to the plastic. Use polypropylene and polyethylene plastics for any covers or binders that come in contact with the colour output.

3

3

3

4. Basic Copying

Overview
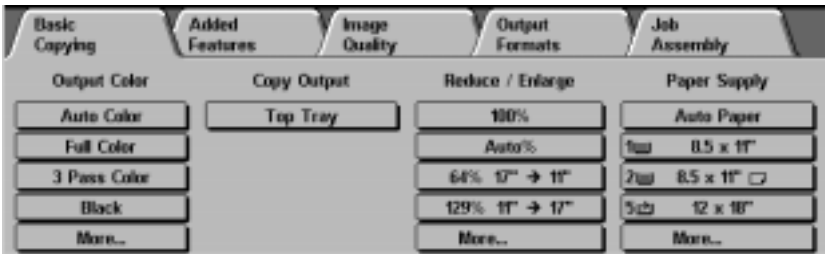
Figure 1: Basic Copying Tab

The Basic Copying tab, illustrated in Figure 1, displays frequently used features.

Output Colour

The Output Colour feature allows you to select the colours to be used for copying.

Copy Output

The Copy Output feature enables you to select the destination of the output. Available options differ, based on whether the DocuColor 12 uses the Output Catch Tray or has a Sorter/Mailbox.

Reduce/Enlarge

The Reduce/Enlarge feature allows you to select the size of the output image from preset values, and the automatic reduction/enlargement or variable independent ratios for the image length and width.

Paper Supply

The Paper Supply feature allows you to select the tray that contains the correct output paper size and type.

Your System Administrator may have added other features. Descriptions of features other than those listed here may be found in other chapters.

KEY POINT:

- When you select the **More...** button, you see additional options on another screen. If you choose an option from this secondary screen, save your selection and return to the tab. The selected option is displayed beside the word **More...**.

- Features and options discussed in this chapter follow the factory default settings. You may see different settings, depending on the options your System Administrator has selected in Tools mode.

Output Colour

The Output Colour feature, Figure 2, allows you to select the desired output colour.

The output colour options displayed on the Basic Copying tab are Auto Colour, Full Colour, 3 Pass Colour, and Black.

If you select the **More...** button, the screen also displays the Single Colour option. Touching the Single Colour button displays the options of Red, Green, Blue, Yellow, Magenta and Cyan, as illustrated in Figure 3.

NOTE: Gold, silver, and fluorescent colours cannot be copied accurately on this copier/printer. The dry inks (toners) do not contain the metallic particles necessary to accurately reproduce gold and silver colours or the fluorescent properties that are required to reproduce fluorescent colours.
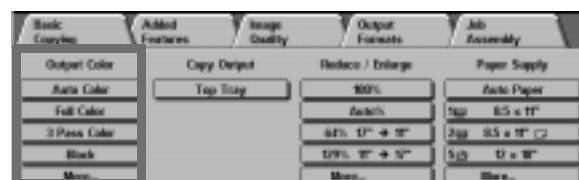
Figure 2: Output Colour options on the Basic Copying Tab

Figure 3: Output Colour Screen

4

Auto Colour

The Auto Colour option enables the copier/printer to determine automatically if the document is black and white or colour. If the document is black and white, the Black option is selected automatically. If the document is coloured, the Full Colour option is selected.

NOTE: The Duplex Automatic Document Feeder or Document Glass Cover must be closed for the Auto Colour option to function. If the Duplex Automatic Document Feeder or Document Glass Cover cannot be closed, an Output Colour other than Auto Colour must be selected.

For the scanner to accurately sense the presence of colour on a document during the prescan cycle, the colour area on the document must be greater than 50 mm^2 (approximately 2 inches squared). If the colour area is less than 50 mm^2, select the Full Colour option.

With the Auto Colour option, some very dark colours may be sensed as black and therefore copied as black. In these cases, select the Full Colour option.

4

Full Colour

The Full Colour option combines all four dry ink (toner) colours (black, cyan, magenta, and yellow). You should select the Full Colour option when the document contains colour and black, as in Figure 4. In this mode, output is produced at approximately 12 copies/prints per minute.

KEY POINT: Gold, silver, and fluorescent colours cannot be copied accurately on this copier/printer. The dry inks (toners) do not contain the metallic particles necessary to accurately reproduce gold and silver colours or the fluorescent properties that are required to reproduce fluorescent colours.
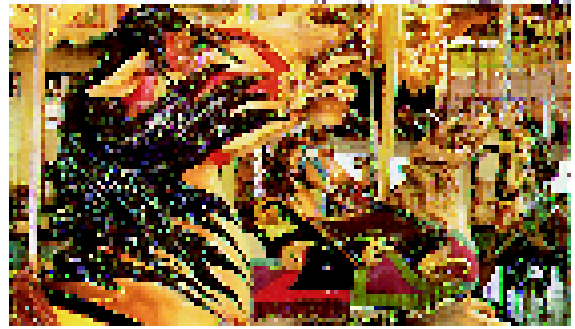

Figure 4: Example of Full Colour

3 Pass Colour

The 3 Pass Colour option combines the three colours of dry inks (cyan, magenta, and yellow), as illustrated in Figure 5. You should select the 3 Pass Colour option when the document contains very little black, or when Process Black is acceptable over a true reproduction black, such as is used with photographs. Process Black is a combination of equal amounts of the three dry inks (toners).

Figure 5: Example of 3 Pass Colour

Black

The Black option should be selected when the desired output is a black and white copy. Black and white copies can be made from any document. When you select Black, the copier/printer will use black dry ink (toner) only, as in Figure 6.

With the Black option, the copier/printer produces 36 copies per minute when it uses 8.5 x 11 inch (A4) paper that is fed long edge first.

Figure 6: Example of Black

Single Colour

The Single Colour option, accessed through the **More...** button, changes the image and/or text on a document to one colour other than black. Single colour copies, as illustrated in Figure 7, can be made from any colour or black and white document. The Touch Screen directs you to select one of six preset colours (Red, Green, Blue, Yellow, Magenta, or Cyan).

NOTE: Using this option will not create a colour separation. Close examination will reveal that multiple colours are used to create the output that appears to be a "single" colour.

Figure 7: Example of Single Colour

Selecting Output Colour

On the Basic Copying tab, select the desired Output Colour option.

Selecting a Single Output Colour

1   On the Basic Copying tab, touch the Output Colour **More...** option to display the Output Colour screen, as in Figure 8.

2   Touch **Single Colour**.

3   Touch the desired colour.

Figure 8: Output Colour Screen with Single Colour Options

4   Touch **Save** to return to the Basic Copying tab.

Copy Output

The Copy Output feature enables you to select the destination of the output and determine whether it is to be collated or uncollated. For example, three copies of a three-page collated job will result in three sets of copies in 1, 2, 3 order. Three copies of a three-page uncollated job will result in output in the order 1, 1, 1, 2, 2, 2, 3, 3, 3.

**Figure 9: Copy Output
without optional Sorter/Mailbox**

If the DocuColor 12 does not have a Sorter/Mailbox, only one output tray is listed, as illustrated in Figure 9. No other option is available.

If the DocuColor 12 has a Sorter/Mailbox, output may be directed to the Sorter/Mailbox Bins or Offset Catch Tray. Use the following procedure to make your choice.

$1_2\ 3...$

4

On the Basic Copying tab, touch the appropriate Copy Output option, as illustrated in Figure 10:

- Touch **Auto Output** to direct collated output to the Offset Catch Tray.

- Touch **Collated** to direct up to 10 sets of collated output to the Sorter/Mailbox Bins.

- Touch **Uncollated** to direct uncollated output to the Sorter/Mailbox Bins.

    If the job has more than 10 original documents, production will pause after the tenth set has been delivered until you clear the bins of all output and press **Start**.
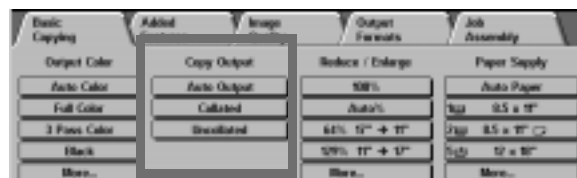
**Figure 10: Copy Output options
with optional Sorter/Mailbox**

Reduce/Enlarge

The Reduce/Enlarge feature allows you to copy the image at different magnifications.

You can select one of the following options on the Basic Copying tab, as illustrated in Figure 11.
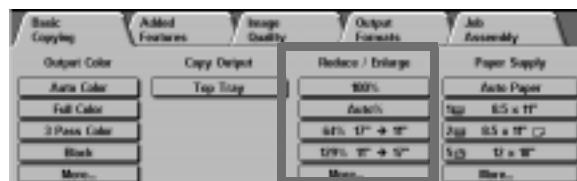
Figure 11: Reduce/Enlarge options on the Basic Copying Tab

Percentage options

Depending on what the System Administrator has selected, you see several percentage options for reduction/enlargement.

For example, use the **100%** option to ensure copies are the same size as the original document. Copies may be reduced to 25% or enlarged to 400%.

KEY POINT: If the image on the document extends to the edges of the paper, select the Copy All option to avoid image loss on the copies.

Auto%

The Auto% option automatically reduces or enlarges the copy, based on the size and orientation of the document and the paper supply selected. This option is applied only to standard size documents.

KEY POINT: Select Auto% when the document and the copy paper are different sizes.

The copy image will be reduced or enlarged in the same proportions for X (horizontal) and Y (vertical) directions.

KEY POINT: The X and Y directions are always determined in reference to the registration arrow, located around the Document Glass, Figure 12. The X direction is always along the long edge of the Document Glass, and theY direction is along the short edge of the Document Glass. The X and Y direction references on the Document Glass remain the same, regardless of the document orientation (long edge registration or short edge registration).

NOTE: The Auto Paper option in Paper Supply is not available when Auto% is selected.
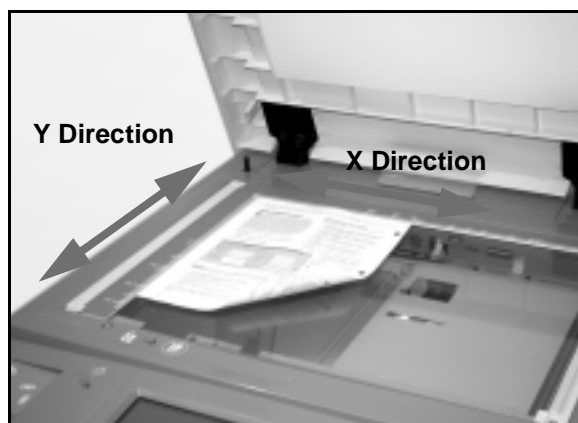
Figure 12: Document Glass directions

Setting basic options

On the Basic Copying Tab, select the desired Reduce/Enlarge option, as in Figure 13.
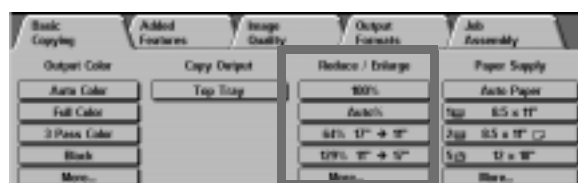
Figure 13: Reduce/Enlarge options on the Basic Copying Tab

Advanced options for Reduce/Enlarge

Touching the Reduce/Enlarge **More...** button on the Basic Copying tab enables you to set reduction or enlargement according to the following options illustrated in Figure 14:

- Preset%

- Variable%

- Independent X-Y%

Figure 14: Additional Options for Reduce/Enlarge

Preset%

When you select the Preset% option, the percentages that display on the Basic Copying tab are supplemented by additional preset percentages. The selected percentage displays in the value box on the Reduce/Enlarge screen.

Select the **Copy All** option to select an automatic 93% reduction. This ensures that the entire original document image is copied to the edges and placed onto the output despite normal edge deletion.

1 2 3...

1 Under Reduce/Enlarge on the Basic Copying tab, touch the **More...** button.

2 On the Reduce/Enlarge screen, select the **Preset%** option, as illustrated in Figure 15.

3 Perform one of the following:

- Touch a preset percentage.

- Touch **Copy All** to scan the original document image to its edges, reduce it automatically, and produce output that includes the whole image. Touch **Copy All** again to return to normal copying.

4 Touch **Save** to return to the Basic Copying tab.

Figure 15: Preset% Reduce/Enlarge

Variable%

Select the Variable% option to enter the desired percentage for Reduce/Enlarge. Use either the up and down arrows or the number buttons that display on the Touch Screen. Copies may be reduced to 25% or enlarged to 400%.

Table 1 lists some common percentage conversions for different paper sizes:

Percentage	Paper sizes
64%	11 x 17 inch to 8.5 x 11 inch
129%	8.5 x 11 inch to 11 x 17 inch
70%	A3 to A4
78%	8.5 x 14 inch to 8.5 x 11 inch
141%	A4 to A3
154%	5.5 x 8.5 inch to 8.5 x 11 inch
220%	5.5 x 8.5 inch to 11 x 17 inch

Table 2: Percentage conversions

4

$1_2\ 3...$

1 Under Reduce/Enlarge on the Basic Copying tab, touch the **More...** button.

2 On the Reduce/Enlarge screen, select the **Variable%** option, as in Figure 16.

3 Perform one of the following:

- Touch the **up arrow** to increase the percentage value in increments of 1.

- Touch the **down arrow** to decrease the percentage value in decrements of 1.

- Use the Numeric Keypad on the Touch Screen to enter a specific percentage, from 25 through 400.

The values increase or decrease in the displayed value box according to your entries.

4 Touch **Save** to return to the Basic Copying tab.

Figure 16: Variable% Reduce/Enlarge screen

4

Independent X - Y%

Select the Independent X - Y% option to copy the image at different, independent magnifications from 25% to 400% for the X and Y directions.

For example, you can enlarge the image to 129% in the X direction and reduce it to 64% in the Y direction.

Selecting the Independent X - Y% option on the Reduce/Enlarge screen displays an additional screen. This screen, illustrated in Figure 17, enables you to select variable reduction/ enlargement options:

• Variable%

• Auto%

Figure 17: Independent X - Y% Options for Reduce/Enlarge

NOTE:

• The Auto% option is applied only to standard size documents.

• The X and Y directions are always determined in reference to the registration arrow, located around the Document Glass, Figure 18. The X direction is always along the long edge of the Document Glass, and the Y direction is along the short edge of the Document Glass. The X and Y direction references on the Document Glass remain the same, regardless of the document orientation (long edge registration or short edge registration).

All of the Independent X-Y options require you to enter the original orientation that most closely resembles how the document is placed on the Document Glass.
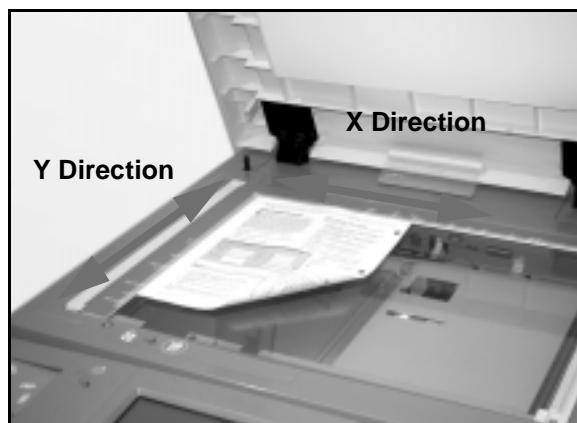
Figure 18: The X and Y Directions on the Document Glass

Independent X - Y%: Variable%

The Variable% option enables you to select different percentages for reduction and enlargement in either the X or Y direction by using Touch Screen arrows. You can also indicate the orientation of the original on the Document Glass.

$1_2\ 3...$

_1_ Under Reduce/Enlarge on the Basic Copying tab, touch the **More...** button.

_2_ On the Reduce/Enlarge screen, select the **Independent X - Y%** option to display the Independent X - Y% screen.

_3_ Select the **Variable%** option, as in Figure 19. Perform one of the following:

- Touch the **up arrow** to increase the percentage value for the Length - Y, X & Y, or Width - X.

- Touch the **down arrow** to decrease the percentage value for the Length - Y, X & Y, or Width - X.

The values increase or decrease in the displayed value box according to your entries.

Figure 19: Variable% Reduce/Enlarge screen

_4_ Touch the icon that most closely resembles the orientation of the original document on the Document Glass.

_5_ Touch **Save** to return to the previous Reduce/ Enlarge screen.

_6_ Touch **Save** to return to the Basic Copying tab.

Independent X - Y%: Auto%

The Auto% option enables the copier/printer to calculate the reduction and enlargement automatically based on the original document size and on the output paper size.

KEY POINT: This option is applied only to standard size documents.

1   Under Reduce/Enlarge on the Basic Copying tab, touch the **More...** button.

2   On the Reduce/Enlarge screen, select the **Independent X - Y**% option to display the Independent X - Y% screen.

3   Touch the **Auto%** option, as in Figure 20.

Notice that the values in both the Length - Y and Width - X boxes display as Auto.

Figure 20: Auto% Reduce/Enlarge screen

4   Touch the icon that most closely resembles the orientation of the original document on the Document Glass.

5   Touch **Save** to return to the previous Reduce/Enlarge screen.

6   Touch **Save** to return to the Basic Copying tab.

Paper Supply

The Paper Supply option enables you to select output paper size and type.

The Basic Copying tab displays the Auto Paper selection option. This option enables the copier/printer to automatically detect the original document size and select appropriate standard-size paper in Paper Trays 1, 2, 3 or 4.

The Basic Copying tab also displays the contents of three other trays, enabling you to specify your selection for output size, as in Figure 21. The Paper Supply **More...** button enables you to access the Paper Supply screen.

The paper size displayed for Paper Trays 1, 2, 3, and 4 is set when you adjust the paper guides as part of the process of loading paper. The System Administrator sets paper type for the trays in the Tools mode.

You may select both the paper size and paper type on the detail screen when loading paper into Paper Tray 5.

NOTE: If you want to change the weight of paper loaded in Paper Tray 1, 2, 3, or 4, contact your System Administrator or use the Tools Mode to change the paper weight for the specified tray before loading paper.
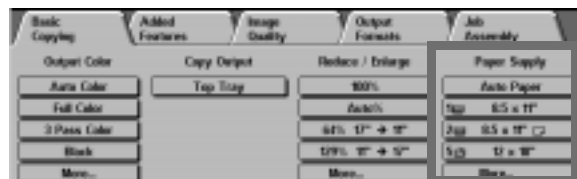
Figure 21: Paper Supply on the Basic Copying Tab

Auto Tray Switching

The Auto Tray Switching option enables the copier/printer to switch automatically to another tray when a tray runs out of paper, providing that the trays are loaded with the same size paper in the same orientation (long edge feed or short edge feed).

You can reload paper in empty trays while the copier/printer is running to ensure continuous production.

Auto Tray Switching is enabled in the Tools mode only for Paper Trays 1, 2, 3 and 4. Tray 5 can not be enabled for Auto Tray Switching.

The factory default for Auto Tray Switching is ON with Paper Trays 1, 2, 3, and 4 enabled.

To use Auto Tray Switching with the factory default settings, load the trays you want to use with the same size paper in the same orientation.

For example, if you load trays 2 and 3 with the same size paper in the same orientation, select the Tray 2 paper supply button on the Touch Screen. The copier/printer draws paper from Tray 2 until it is depleted, then switches automatically to Tray 3.

4

Selecting the Paper Supply

1 On the Basic Copying Tab, review the displayed paper trays under Paper Supply to see if the desired paper size and type is displayed.

2 Perform one of the following:

- Touch the **Auto Paper** option. The copier/ printer selects the appropriate paper automatically.

- Touch the tray that displays the appropriate paper. The copier/printer will use paper from this tray.

- Touch the **More...** button to display the Paper Supply screen, Figure 22, with the five paper tray options.

    Touch the appropriate tray icon. The copier/ printer will use paper from this tray.

NOTE: If you select Paper Tray 5, go to the procedure "Programming the Paper Supply for Tray 5."

Notice that the copier/printer icon highlights the location of the paper tray that is selected.

3 Touch **Save** to display the Basic Copying tab.

Figure 22: Paper Supply screen

Programming the Paper Supply for Tray 5

You must select the paper size and paper type when loading paper into Tray 5.

1   On the Basic Copying tab under Paper Supply, touch the **More...** button to display the Paper Supply screen, Figure 23.

Figure 23: Paper Supply screen

2   Touch the **Tray 5** icon to display the Tray 5 screen, Figure 24.
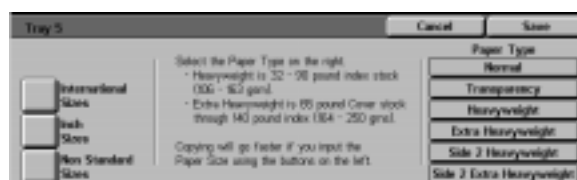
Figure 24: Tray 5 screen

3 Perform one of the following to select paper size:

- Touch **International** and select one of the preset international sizes, such as A3 or A4, as illustrated in Figure 25.

  KEY POINT: You must select **International** to access the Postcard size option.

Figure 25: Tray 5 International Paper Sizes

- Touch **Inch Sizes** and select one of the standard US sizes, such as 8.5 x 11 or 11 x 17 inches, as illustrated in Figure 26.

Figure 26: Tray 5 Inch Sizes

- Touch **Non Standard Sizes** and enter the X (width) and Y (length) dimensions by using the arrows, as illustrated in Figure 27.

  Touch the **left** or **right arrows** to decrease or increase the X (width) dimensions. Touch the **down** or **up arrows** to decrease or increase the Y (length) dimensions.

Figure 27: Tray 5 Non Standard Sizes

4 Touch the appropriate Paper Type.

5 Touch **Save** to return to the Paper Supply screen.

6 Touch **Save** to return to the Basic Copying tab.

4

4

5.   Added Features

Overview

Figure 1: Added Features Tab

Use the Added Features tab (Figure 1) to
select options for the features described
below.

2 Sided Copying

The 2 Sided Copying feature specifies 1 to 1,
1 to 2 (head-to-head), and 1 to 2 (head-to-toe)
copying.

Bound Originals

The Bound Originals feature splits the image
of an open bound original into pages to enable
copying of each page.

Margin Shift

The Margin Shift feature enables you to centre a document image, shift the image to one edge slightly, or move the image to a specified edge of the output copy.

Edge Erase

The Edge Erase feature allows you to erase any undesired images around the border of a document. Edge Erase may begin at the image and go out to the edge of the original document. Edge Erase may be also applied to any centre streaks caused by a gap between the spine of a bound document and the Document Glass.

Original Size

The Original Size feature enables you to specify the size of the original document to be copied. You may select a standard international, standard US paper size, or a non-standard size. The Auto Detected feature enables the copier/printer to identify the size of the original automatically.

5

Mixed Size Originals

When the Duplex Automatic Document Feeder (DADF) is present, you can place documents of mixed sizes into the DADF for copying. When the Mixed Size Originals feature and Auto paper tray are selected, the copier/printer automatically identifies the document size and selects the correct paper supply.

KEY POINT:

- When you select a feature option other than the default, save your selection and then return to the tab, a check mark displays near the feature name, and the selected value or option displays under the feature name.

- Features and options discussed in this chapter follow the factory default settings. You may see different settings, depending on the options your System Administrator has selected in Tools mode.

5

2 Sided Copying

Use the 2 Sided Copying feature on the Added Features tab to select one or two-sided copy, with options for 2-sided output.

KEY POINT: The 2 Sided Copying feature is available for output of 16 lb. through 28 lb. (64 through 105 gsm) paper or for standard sizes smaller than 12 x 18 inches (A3). Use the procedure "Manual 2 Sided Copying" for paper outside these limits.

Using the 2 Sided Copying feature

1 On the Added Features tab, locate and touch the **2 Sided Copy** feature, as in Figure 2.

Figure 2: 2 Sided Copying feature on the Basic Copying tab

2 If you have a DADF, touch the **2 Sided Copy** button. Touch the desired option from those illustrated in Figure 3:

- **1 to 1 Sided** icon for default one-sided copies

Figure 3: 2 Sided Copying options

- **1 to 2 Sided** icon for two-sided copies from one-sided input, as illustrated in Figure 4.
  - Touch **Flip on Long Edge** for two-sided, head-to-head output, as for books.
  - Touch **Flip on Short Edge** for two-sided, head-to-toe output, as for calendars.

Figure 4: 1 to 2 Sided Copying option

- **2 to 2 Sided** icon for two-sided copies from two-sided input.

  Select the Side 2 Rotate button to display the Side 2 Rotate screen, illustrated in Figure 5. Touch the appropriate description for input documents and desired output:

  – Touch **Right/Left open** for two-sided, head-to-head output, as for books.

  – Touch **Top/Bottom open** for two-sided, head-to-toe output, as for calendars.

- **2 to 1 Sided** icon for one-sided copies from two-sided originals, as illustrated in Figure 6.

  – Touch **Flip on Long Edge** if your original documents are two-sided, head-to-head.

  – Touch **Flip on Short Edge** if your original documents are two-sided, head-to-toe output, as for calendars.
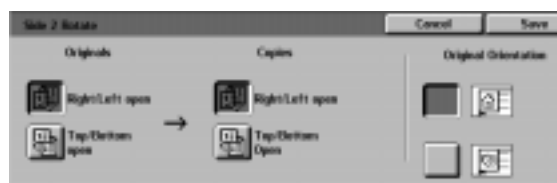
Figure 5: Side 2 Rotate screen

Figure 6: 2 to 1 Sided Copying option

3 If you not have a DADF, perform one of the following:

- Touch the **1 Sided** icon for default one-sided copies.

- Touch the **2 Sided** icon to display the 2 Sided Copy screen. Under Side 2 Rotate, perform one of the following:

  – Touch **Flip on Long Edge** for two-sided, head-to-head output, as for books.

  – Touch **Flip on Short Edge** for two-sided, head-to-toe output, as for calendars.

4 Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

5 Touch **Save** to return to the Added Features tab.

Manual 2 Sided copying

KEY POINT: The 2 Sided Copying feature is available for output of 16 lb. through 28 lb. (64 through 105 gsm) paper for standard sizes smaller than 12 x 18 inches (A3).

To create 2-sided copy for output stock that varies from the requirements for the automatic 2 Sided Copying feature, you must perform a manual feed from Paper Tray 5.

KEY POINT: In the following procedure, you may want to make one extra copy in step 1 to use as a sample for checking image orientation. Change quantity to 1 before performing step 4. Once you are satisfied with the orientation, change the quantity again to complete the job.

1 Copy the first side using the **1 Sided** option.

2 Select **Tray 5** as the Paper Supply option on the Basic Copying tab.

3 Position your copies in Paper Tray 5 with the image side down.

Ensure the top of the image is oriented in the same direction as the top of the original document.

4 Copy as a 1 Sided Copy.

Bound Originals

The Bound Originals feature (Figure 7) enables you to copy bound documents such as magazines or journals, notebooks, glued forms, or stapled sets.

When this feature is selected, each page is copied onto a separate sheet of paper.

The Bound Originals feature offers several options, illustrated in Figure 8:

- Bound Originals Off

- Normal Bound Originals

- Right to Left Format

- Calendar Format

The pages of the bound document may be any size up to 8.5 x 11 inches (A4).

The Binding Erase option allows you to remove the shadow caused by the centre binding of bound documents when they are copied. The value displayed or entered for this option corresponds to the value displayed in the Variable Erase/Centre Area Erase option.

KEY POINT: Place the bound document face down in the upper left corner of the Document Glass, as illustrated in Figure 9.

Figure 7: Bound Originals feature

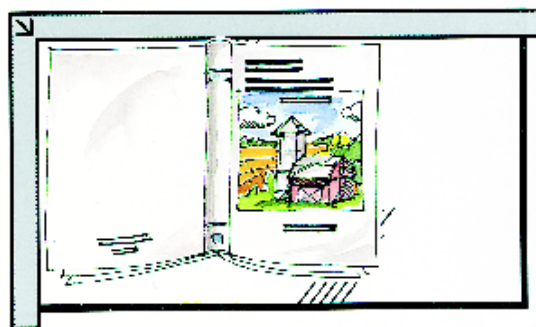**Figure 8: Bound Originals screen with Normal Bound Originals selected**

Figure 9: Bound Originals copy position

5

NOTE: Keep the following notes in mind when using Bound Originals:

- Select the Auto% option of the Reduce/Enlarge feature on the Basic Copying tab to enlarge the pages of a bound document so they fit onto the selected long edge paper.

- Do not use Bound Originals with the following features:
    - Multiple-Up
    - Repeat Image

CAUTION: Do not force the DADF or Document Glass Cover down onto the bound document. Forcing the DADF or Document Glass Cover down could damage it. Instead, leave the DADF or Document Glass Cover open and apply a slight pressure with your hand to the bound document to keep it flat against the Document Glass.

After you press START, the copier/printer completes a prescan to determine the centre location of the bound document.

KEY POINT: If the selected quantity is more than one, the copier/printer completes all the copies of the image on the right side of the glass, then all the copies of the image on the left side.

5

Bound Originals Off

The Bound Originals Off option indicates no special scanning is required. It is the default setting.

Figure 10: Bound Originals screen with the Bound Originals Off option selected

$1_2\,3...$

1   Touch the **Bound Originals** icon on the Added Features tab to display the Bound Originals screen.

2   Touch the **Bound Originals Off** icon, as in Figure 10.

3   Touch **Save** to return to the Added Features tab.

5

Normal Bound Originals

Use the Normal Bound Originals option to copy the pages of a left-bound document in the order 1 to N (the last page copied).

When you select the Normal Bound Originals icon, the copier/printer scans and copies the left page of a bound document, then scans and copies the right page. Both are then sent to the selected destination.

When the output is 2 sided and you have selected the Normal Bound Originals option, the image from the left page is scanned and copied onto Side 1, then the image from the right page is scanned and copied onto Side 2.

1 Touch the **Bound Originals** icon on the Added Features tab to display the Bound Originals screen.

2 Touch the **Normal Bound Originals** icon, as in Figure 11.

3 Perform one of the following:

  ● To scan and copy both pages, touch the **Both Pages** icon.

  ● To scan and copy the left page without the right page, touch the **Left Page Only** icon.

  ● To scan and copy the right page without the left page, touch the **Right Page Only** icon.

Figure 11: Bound Originals screen with Normal Bound Originals selected

4   If necessary, use the arrows under the Binding Erase icon to delete the centre shadow from the output. Touch the right arrow to increase the amount of erasure in the centre of the output copy. Touch the left arrow to decrease the amount of erasure in the centre of the output copy. Binding Erase values range from 0 to 50 mm.

Notice that the values in the box increase or decrease according to your selection.

5   Use the diagram on the screen when you place the original onto the Document Glass to ensure expected results.

The bound document should be placed face down with the upper outside corner of the right page in the upper left corner of the Document Glass.

6   Touch **Save** to return to the Added Features tab.

5

Right to Left Format

Use this option to copy the pages of a right-bound document in the order 1 to N (the last page copied).

When you select the Right to Left Format icon, the copier/printer scans and copies the right page of a bound document, then scans and copies the left page. Both are then sent to the selected destination.

When the output is 2 sided and you have selected the Right to Left Format option, the image from the right page is scanned and copied onto Side 1, then the image from the left page is scanned and copied onto Side 2.

1 Touch the **Bound Originals** icon on the Added Features tab to display the Bound Originals screen.

2 Touch the **Right to Left Format** icon, as in Figure 12.

3 Perform one of the following:

- To scan and copy both pages, touch the **Both Pages** icon.

- To scan and copy the left page without the right page, touch the **Left Page Only** icon.

- To scan and copy the right page without the left page, touch the **Right Page Only** icon.

Figure 12: Bound Originals screen with Right to Left Format icon selected

4   If necessary, use the arrows under the Binding Erase icon to delete the centre shadow from the output. Touch the right arrow to increase the amount of erasure in the centre of the output copy. Touch the left arrow to decrease the amount of erasure in the centre of the output copy. Binding Erase values range from 0 to 50 mm.

Notice that the values in the box increase or decrease according to your selection.

5   Use the diagram on the screen when you place the original onto the Document Glass to ensure expected results.

The bound document should be placed face down with the upper outside corner of the right page in the upper left corner of the Document Glass.

6   Touch **Save** to return to the Added Features tab.

5

Calendar Format

Use the Calendar Format option when the document is bound at the top, as a wall calendar.

When you select the Calendar Format icon, the copier/printer scans and copies the top page of a bound document, then scans and copies the bottom page. Both are then sent to the selected destination.

When the output is 2 sided and you have selected the Calendar Format option, the image from the top page is scanned and copied onto Side 1, and the image from the bottom page is scanned and copied onto Side 2.

KEY POINT: If you want the bottom page to scan and print first, simply change the orientation of the original on the Document Glass by turning it 180°.

1   Touch the **Bound Originals** icon on the Added Features tab to display the Bound Originals screen.

2   Touch the **Calendar Format** icon as in Figure .

Figure 13: Bound Originals screen with Calendar Format selected

3   Perform one of the following:

- To scan and copy both pages, touch the **Both Pages** icon.

- To scan and copy the top page without the bottom page, touch the **Top Page Only** icon.

- To scan and copy the bottom page without the top page, touch the **Bottom Page Only** icon.

4   If necessary, use the arrows under the Binding Erase icon to delete the centre shadow from the output. Touch the right arrow to increase the amount of erasure in the centre of the output copy. Touch the left arrow to decrease the amount of erasure in the centre of the output copy. Binding Erase values range from 0 to 50 mm.

Notice that the values in the box increase or decrease according to your selection.

5   Use the diagram on the screen when you place the original onto the Document Glass to ensure expected results.

The bound document should be placed face down with the upper left corner of the top page in the upper left corner of the Document Glass.

6   Touch **Save** to return to the Added Features tab.

5

Margin Shift

The Margin Shift feature (Figure 14) allows you to change the placement of an image on the output page.

You can move images to the centre of the output or move them to a specific corner or edge. In addition, you can specify variable incremental shifts toward any margin.

This section describes the following options illustrated in Figure 15:

- No Shift

- Auto Centre

- Corner Shift

- Variable Shift

NOTE: You can select only one shift option at any time for each side.

After you have selected a Margin Shift option, the Added Features screen displays a check in the feature check box beside the set values.

Figure 14: Margin Shift feature

Figure 15: Margin Shift screen

5

No Shift

If No Shift is selected, the copier/printer assumes that the original document is registered in the upper left corner of the Document Glass. If the document is offset from this registration point, the image on the output copy will be offset by the same amount.

$1_2\ 3...$

1   Touch the **Margin Shift** icon on the Added Features tab to display the Margin Shift screen, Figure 16.

2   Touch either the **Side 1** or **Side 2** icon to display the Margin Shift screen for the desired side.

Figure 16: Margin Shift screen

3   Touch the **No Shift** icon, as in Figure 17.

4   Touch **Save** to return to the Margin Shift screen.

5   If desired, repeat steps 2-4 to adjust the Margin Shift for the other side.

Figure 17: Margin Shift screen with No Shift selected

6   Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

7   Touch **Save** to return to the Added Features tab.

5

Auto Centre

Selecting the Auto Centre option centres the original image on the output page, as illustrated in Figure 18.

KEY POINT: The Auto Centre option is not available for 12 x 18 inch or SRA3 originals that are being copied without reduction.

The Auto Centre option is intended for copying original documents that are smaller than the copy paper. You can also use this feature when you select a reduction value for original documents that are larger than the copy paper selected.

NOTE: In some cases, the original image centre will be shifted slightly on the output copy.

The orientation of the output image is determined by the placement of the document on the Document Glass and the orientation of the selected paper supply.

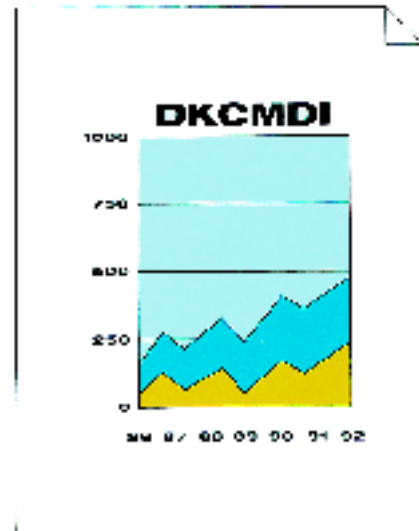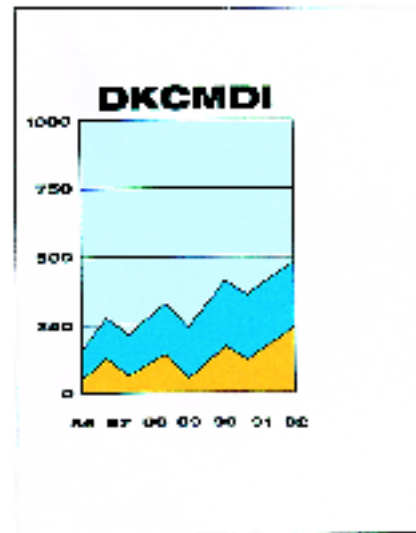The copier/printer completes a prescan to determine the size of the document.

5

Figure 18: Example of Auto Centre

1   Touch the **Margin Shift** icon on the Added Features tab to display the Margin Shift screen, as illustrated in Figure 19.

2   Touch either the **Side 1** or **Side 2** icon to display the Margin Shift screen for the desired side.

Figure 19: Margin Shift screen

3   Touch the **Auto Centre** icon to display the Auto Centre detail screen, as illustrated in Figure 20.

4   Touch **Save** to return to the Margin Shift screen.

Figure 20: Margin Shift screen with Auto Centre selected

5   If desired, repeat steps 2-4 for the other side.

6   Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

7   Touch **Save** to return to the Added Features tab.
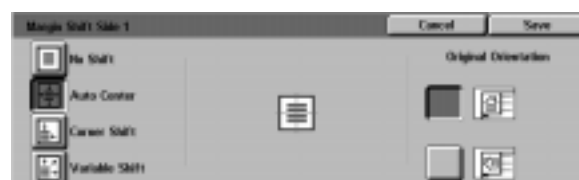
5

Corner Shift

Select the Corner Shift feature to move the image to a specified edge or corner on the output copy for Side 1 or 2, as illustrated in Figure 21.

This feature works in three ways:

- To shift an image on small documents to a specified corner on the output

- To be used with the Reduction feature to designate a position where the reduced image is to appear on the output

- To be used with the Enlarge feature to designate a position where the enlarged image is to appear on the output

NOTE: Corner Shift may not be evident on your output if you copy your original document at 100%.

The orientation of the image on the copies is determined by the placement of the document on the Document Glass and by the orientation of the selected paper supply.

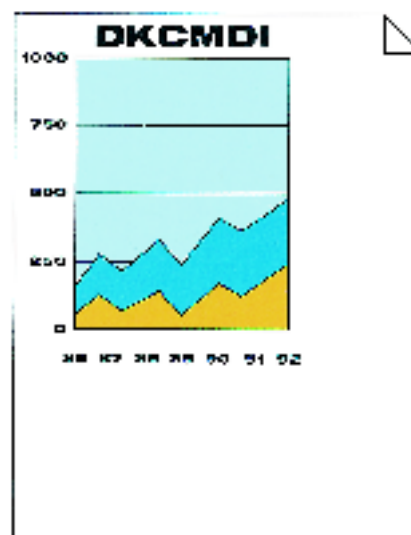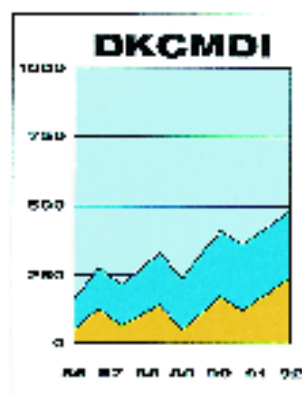The copier/printer completes a prescan to determine the size of the document.

Figure 21: Example of Corner Shift

5

1 Touch the **Margin Shift** icon on the Added Features tab to display the Margin Shift screen as illustrated in Figure 22.

2 Touch either the **Side 1** or **Side 2** icon to display the Margin Shift screen for the desired side.

Figure 22: Margin Shift screen

3 Touch the Corner Shift icon to display the Corner Shift detail screen, as illustrated in Figure 23.

4 Touch the arrow icon that illustrates the desired location of the image on the output copy.

5 Touch **Save** to return to the Margin Shift screen.

Figure 23: Margin Shift screen with Corner Shift selected

6 If desired, repeat steps 2-5 for the other side.

7 Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

8 Touch **Save** to return to the Added Features tab.

5

Variable Shift

The Variable Shift option enables you to adjust the horizontal or vertical orientation of the output image, as illustrated in Figure 24. You can shift the image up, down, right, or left by means of the variable arrow buttons.

You can designate the variable shift in 1 mm increments, from 0 to 432 mm.

NOTE: Do not use Variable Shift if you want 100% of your original document to be copied.

The orientation of the image on the copies is determined by the placement of the document on the Document Glass and by the orientation of the selected paper supply.
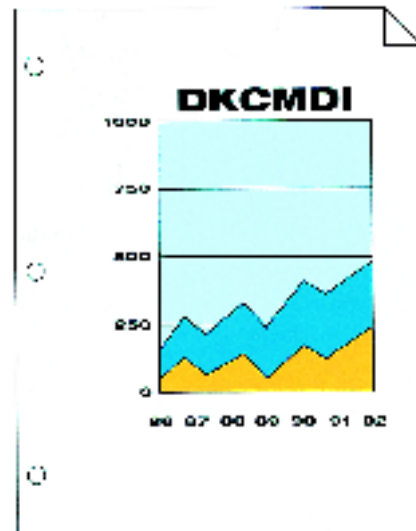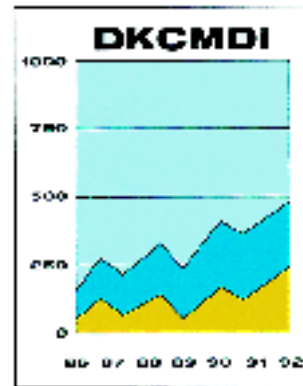

Figure 24: Example of Variable Shift

![1 2 3...]

1 Touch the **Margin Shift** icon on the Added Features tab to display the Margin Shift screen, as illustrated in Figure 25.

2 Touch either the **Side 1** or **Side 2** icon to display the Margin Shift screen for the desired side.

Figure 25: Margin Shift screen

3 Touch the **Variable Shift** icon to display the Variable Shift detail screen, as illustrated in Figure 26.

Figure 26: Margin Shift screen with Variable Shift selected

4 Perform one or both of the following:

- Under the **Left & Right** icon, touch the **right arrow** to shift the image toward the right edge. Touch the **left arrow** to shift the image toward the left edge. Continue to touch the appropriate arrow until you have specified the desired amount of shift from 0 to 432 mm.

- Under the **Up & Down** icon, touch the **up arrow** to shift the image toward the top edge. Touch the **down arrow** to shift the image toward the bottom edge. Continue to touch the appropriate arrow until you have specified the desired amount of shift from 0 to 432 mm.

Notice that the values in the box increase or decrease according to your selection and that the icon illustrates the direction of the shift.

5

5   Touch **Save** to return to the Margin Shift screen.

6   If desired, repeat steps 2-5 for the other side.

7   Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

8   Touch **Save** to return to the Added Features tab.

5

Edge Erase

The Edge Erase feature (Figure 27) enables you to eliminate unwanted marks near the edges of the original from the output copy.

This feature offers two options:

- No Erase

- Variable Erase

When you are making 2-sided copies, edge erase is applied to both sides of the output.

KEY POINT: Edge Erase varies according to the reduction/enlargement ratio that you set. For example, when a reduction of 50% combined with an edge erase width of 30 mm results in a 15 mm edge erase.

In order for the Edge Erase feature to function correctly, the original must be registered on the Document Glass against the registration arrow.

After you select an Edge Erase option, the Added Features screen displays a check in the feature check box beside the set values.

NOTE: The System Administrator sets a default Edge Erase. The output reflects the greater of the two values. For example, if the default Edge Erase value is 3 mm and you request an edge erase of 2 mm, the output copy reflects the default value. If you request an edge erase of 5 mm, the output copy uses a 5 mm edge erase.

Figure 27: Edge Erase feature

5

No Erase

The Edge Erase default setting is No Erase, which enables the copies to print within 2 mm of each page edge. This is normally sufficient to remove shadows from the copy edges.

1₂ 3...

1 Touch the **Edge Erase** icon on the Added Features tab to display the Edge Erase screen.

2 Touch the **No Erase** icon, as illustrated in Figure 28.

3 Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

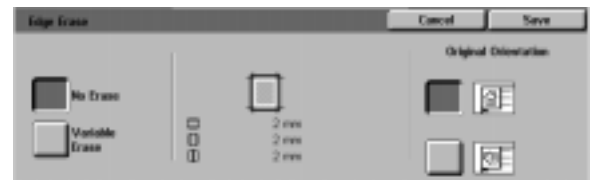*4* Touch **Save** to return to the Added Features tab.

Figure 28: No Erase option on the Edge Erase screen

Variable Erase for edges

The Variable Erase option, illustrated in Figure 29, enables the copier/printer to vary the amount of erasure from 0 to 50 mm in 1 mm increments. The same amount of erasure is applied to both top and bottom edges or right and left edges of the document.

The Centre Area Erase option allows you to remove the shadow caused by the centre binding of bound documents when they are copied. The factory default setting for Centre Erase is 0 (zero).

Select the up arrow to increase the amount of erasure or the down arrow to decrease the amount of erasure.

KEY POINT: If your document contains an image area that extends to the edges of the document, and you do not want any of it to be deleted, use the Variable Erase arrow buttons to set the erase value to zero. Select the Margin Shift feature, Auto Shift option, from the Added Features tab. Ensure that 100% is selected for Reduce/Enlarge feature on the Basic Copying tab.

NOTE: Keep the following notes in mind when using Centre Area Erase:

- Do not use Centre Area Erase with the following features:
    - Multiple-Up
    - Repeat Image

- The Centre Area Erase setting in the Variable Erase feature is the same as the centre erase setting of Bound Originals.

- For some original image sizes, Centre Area Erase does not occur exactly in the centre of the output image.

Figure 29: Variable Erase screen

5

1 Touch the **Edge Erase** icon on the Added Features tab to display the Edge Erase screen.

2 Touch the **Variable Erase** icon to display the Variable Erase screen, as illustrated in Figure 30.

Figure 30: Variable Erase screen

3 Perform one of the following:

- Under the **Top & Bottom Edges** icon, touch the **up arrow** to increase the amount of erasure at the top and bottom edges. Touch the **down arrow** to decrease the amount of erasure at the top and bottom edges.

- Under the **Left & Right Edges** icon, touch the **up arrow** to increase the amount of erasure at the left and right edges. Touch the **down arrow** to decrease the amount of erasure at the left and right edges.

- Under the **Centre Area** icon, touch the **up arrow** to increase the amount of erasure in the centre of the original document. Touch the **down arrow** to decrease the amount of erasure in the centre of the document.

Notice that the values in the boxes increase or decrease according to your selections.

4 Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

5 Touch **Save** to return to the Edge Erase screen, which now displays the new edge erase values.

6 Touch **Save** to return to the Added Features tab, which now displays the new edge erase values.

7 Use the diagram on the screen when you place the original onto the Document Glass to ensure expected results.

Original Size

Use the Original Size feature (Figure 31) to specify the original document size as one of a number of standard international or US sizes. You can also manually specify the dimensions of non-standard input or you can select the Auto Detect option to enable size identification by the copier/printer.

Figure 31: Original Size feature

KEY POINT: Avoid putting items (pens, pieces of paper, etc.) that you do not wish copied onto the Document Glass. Undesirable copy output may occur.

- If you select Auto Detect, the DocuColor 12 performs a prescan and assumes the original document and anything that is on the Document Glass (pens, pieces of paper, etc.) are to be copied.

- If Reduce/Enlarge Auto% is also selected, the image is reduced to include the undesired object.

- If Paper Supply Auto Paper is selected, oversized paper may be selected for copying to include the object in the output image.

5

1 At the Added Features tab, select the **Original Size** icon to display the Original Size screen, as illustrated in Figure 32.

2 Perform one of the following:

- Touch the **Auto Detect** option (default) to have the copier/printer identify the size of the original document.

- Touch the appropriate size for the original document.

- For non-standard sizes, enter the width (X) and length (Y) dimensions of your original document in millimeters.

    – For the X dimension, touch the **right arrow** to increase the value or the **left arrow** to decrease the value. Appropriate X dimensions range from 10 to 432 mm.

    – For the Y dimension, touch the **up arrow** to increase the value or the **down arrow** to decrease the value. Appropriate Y dimensions range from 10 to 297 mm.

    Notice that the values in the boxes increase or decrease according to your selections.

3 Touch **Save** to return to the Added Features tab.

Figure 32: Original Size screen

5

Mixed Size originals

When a Duplex Automatic Document Feeder (DADF) is present, the Mixed Size Originals feature (Figure 33) is displayed on the Added Features tab and documents of mixed sizes can be placed into the DADF for copying. When the Mixed Size originals feature and Auto paper tray are selected, the copier/printer automatically identifies the document size and selects the appropriate paper tray.

Figure 33: Mixed Size Originals feature

1   In the Added Features tab, select the **Mixed Size Originals** icon to display the Mixed Size Originals screen, as illustrated in Figure 34.

2   Perform one of the following:

- Touch the **Same Size** option (default) when the original documents are all the same size, as illustrated in Figure 34.

- Touch the **Mixed Size Originals** option when the original documents are different sizes, as illustrated in Figure 35.

3   Touch the icon that most closely resembles the Original Orientation for the document.

4   Follow the instructions on the screen and load mixed size originals with one edge of every sheet aligned evenly against the front guide to avoid misfeeds.

5   Touch **Save** to return to the Added Features tab.

Figure 34: Mixed Size Originals screen with Same Size option selected

Figure 35: Mixed Size Originals screen with Mixed Size option selected

5

6. Image Quality

Overview

Figure 1: Image Quality Tab

The Image Quality features, listed on the Image Quality tab (Figure 1), allow you to optimize the output copy quality. You begin your adjustment by indicating the type of original document you have. Then you change settings for specific image quality factors such as lightness and darkness, sharpness, or colour.

Examples of the images printed with default settings are provided on the following pages. More detailed information is also provided about the following Image Quality features:

Original Type

The selection of the correct Original Type (for example, Photo & Text, Text, Photo, Graphics & Maps) ensures that the DocuColor 12 uses its fullest scanning capability for that document type.

Preset Colour Balance

The Preset Colour Balance option automatically adjusts Image Quality settings to produce output with balanced image tones.

Lighten/Darken

The adjustment of lightness or darkness will sometimes improve the output quality.

Colour Shift/Saturation

This feature allows you to shift all of the copy colours toward the adjacent hue, as well as adjust the overall richness of colour on the output copy.

Sharpness

The Sharpness feature allows you to adjust the amount of edge definition on the output.

Variable Colour Balance

The Variable Colour Balance feature enables you to set the balance of Yellow, Magenta, Cyan, and Black by the varying degrees of density for each colour.

When you make changes to the Image Quality features, remember that outside factors, such as the quality of the original document, also affect output quality.

NOTE: Selections made in the Image Quality tab are applied to the entire output copy.

KEY POINT: When you select an option other than the default for a feature and then save your selection and return to the tab, a check mark displays near the feature name and the selected value or option displays under the feature name.

Original Type

The Original Type feature (Figure 2) enables you to define the kind of original document you wish to copy. After you have, the copier/printer automatically makes fine adjustments to optimize the copy sharpness based on document type.

There are a number of document type choices available, as illustrated in Figure 3:

- Photo & Text

- Text

- Photo

- Graphics & Maps

After you have selected an Image Quality option, the Image Quality tab will display a check mark in the feature check box with the set values.

For the best copy quality, always select the Original Type that best describes your document.

NOTE: The System Administrator selects the default Original Type. The Original Type icon on the Feature Folder displays the currently selected Original Type as the default.

Figure 2: Original Type feature

Figure 3: Original Type screen

6

Photo & Text

Photo & Text is the best document type selection for original documents that contain pictures and printed text (Figure 4), as you often see in magazines or professional journals.

In the Photo & Text mode, the copier/printer scans the document and copies the text areas with the Text option and the photo areas with the Photo option. Output copies will be made using the best sharpness and density levels for pictures and charts combined with the best levels for text.

Documents to be copied using the Photo & Text option do not have to contain photographs and text. You can use the option simply to apply the best sharpness and density levels automatically for optimum colour quality on all your colour copies.

You can adjust the automatic recognition levels of text and photos. For details, refer to the *System Administration Guide,* or ask your System Administrator for assistance.
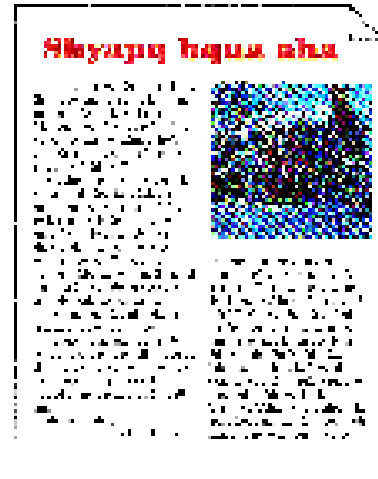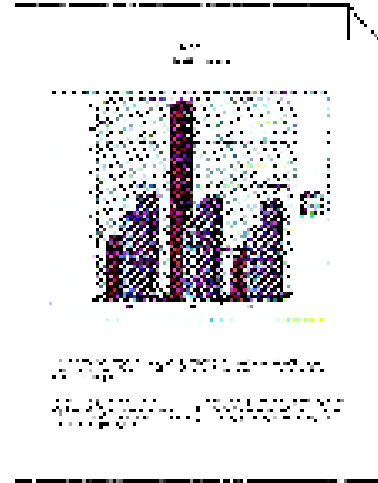

Figure 4: Example of Photo & Text

6

1₂ 3. . .

1   Touch the **Original Type** icon on the Image Quality tab to display the Original Type screen.

2   Touch the **Photo & Text** icon to display the Photo & Text detail screen, Figure 5.

3   Touch the selection in the Photo Type column which best describes the picture or photo in the original document:

Figure 5: Original Type screen with default settings

- **Halftone** (default)

  Use this option for images that are created using a fine screen that varies the darkness and density of dots that make up the image. Examples of halftone images can be found in magazines and newspapers.

- **Photograph**

  Use this option when copying photographs or extremely fine halftones.

- **Xerographic Copy**

  Use this option when using a Xerographic reproduction (copy) as the original document.

4   Touch **Save** to return to the Image Quality tab.

6

Text

Text is the best selection for text documents composed of fine line characters or other high contrast documents with bright, dense colours, as in Figure 6. Selecting this option suppresses background colour.

Examples of text documents include business documents that contain graphics; documents with colour or black text; output from a pen plotter; and documents composed of fine, sharp lines, such as diagrams.
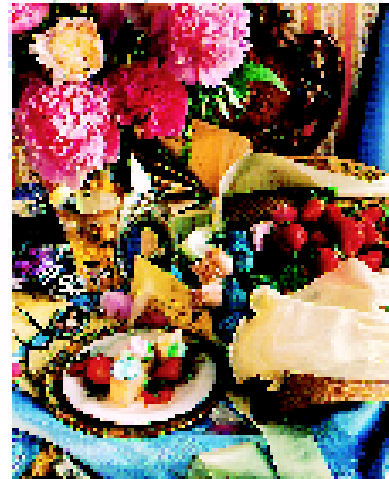
Figure 6: Example of Text Document

$1_2\ 3...$

1 Touch the **Original Type** icon on the Image Quality tab to display the Original Type screen.

2 Touch the **Text** icon to display the Text detail screen, illustrated in Figure 7.

Figure 7: Text detail screen

3 Perform one of the following:

- Select **Standard Text** if the text on the original document is of normal darkness.

- Select **Light Text** if the text on the original document is indistinct or in pencil and should be enhanced for the output copy.

4 Touch **Save** to return to the Image Quality tab.

6

Photo

The Photo option is the best selection for photographs or lithographs. Examples include photographs or lithographs (Figure 8) that portray people, or paintings that contain a variety of pastel colours.

The Photo option provides the most accurate colour and density copy for continuous tone documents that contain a wide range of densities from very dark to very light images.

The Photo option is also the best selection when true reproduction of light skin colours, light colours, or grey areas is important. The Photo option is appropriate for very high quality halftone documents.

Figure 8: Example of Photo Original

1₂ 3. . .

1   Touch the **Original Type** icon on the Image Quality tab to display the Original Type screen.

2   Touch the **Photo** icon to display the Photo detail screen, illustrated in Figure 9.

3   Touch the selection in the Photo Type column which best describes the original document:

Figure 9: Photo detail screen

- **Halftone**

  Use this option for images created using a fine screen that varies the darkness and density of dots that make up the image. Examples of halftone images can be found in magazines and newspapers.

- **Photograph**

  Use this option when copying photographs or extremely fine halftones.

- **Xerographic Copy**

  Use this option when using a Xerographic reproduction (copy) as the original document.

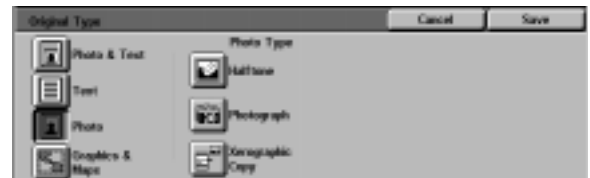*4*   Touch **Save** to return to the Image Quality tab.

6

Graphics & Maps

Use the Graphics & Maps option to optimize the reproduction of detailed graphics, maps, or map-like originals. Examples include highly technical drawings, histograms, pie charts, or roadmaps (Figure 10).

With this option, text on a light-coloured background is enhanced more than if the Photo option or the Text option were used.

Fine detail and light colours are copied very well in this mode. Black and white documents with fine details and a wide range of densities also copy well in this mode, although the fidelity of the reproduction would be better if the Photo option were used.

KEY POINT: When the Graphics & Maps icon is selected, you should specify the original size of any document that has dark borders using the Added Features tab.

Figure 10: Example of Graphics & Maps

1 Touch the **Original Type** icon on the Image Quality tab to display the Original Type screen.

2 Touch the **Graphics & Maps** icon, as illustrated in Figure 11.

3 Touch **Save** to return to the Image Quality tab.

Figure 11: Graphics & Maps icon selected

6

Preset Colour Balance

The Preset Colour Balance feature (Figure 12) automatically changes Image Quality settings to produce balanced image tones described below.

The Preset Colour Balance feature also lets you enable Background Suppression or Auto Suppression.

Figure 12: Preset Colour Balance feature

6

Normal

The Normal option, illustrated in Figure 13, makes no changes to the image quality and produces copies with the same quality and density as those of the original. The Preset Colour Balance default is Normal.

Figure 13: Example of Normal

6

Lively

The Lively option, illustrated in Figure 14, uses the highest colour saturation to produce rich, vivid output colours. The option increases the Colour Saturation to the most vivid setting and adjusts the Lighten/Darken setting one step lighter.

Figure 14: Example of Lively

6

Bright

The Bright option, illustrated in Figure 15, produces a sharp, clear image on the copy.

The Bright option decreases the low density settings for Yellow, Magenta, Cyan, and Black. It increases the colour saturation, adjusts the Lighten/Darken setting two steps darker, and selects the highest Sharpness setting.

Figure 15: Example of Bright

6

Warm

The Warm option, illustrated in Figure 16, produces a soft image on the copy by transforming low density colours into light and reddish colours. Use this setting to apply a light pink tone to skin colours and to give a soft tone to dark, warm colours.

The Warm option decreases the Low and Medium density settings for Yellow and Cyan, and increases the Medium setting for Magenta.

Figure 16: Example of Warm

6

Cool

The Cool option, illustrated in Figure 17, produces a strong, clear blue tone on the copy. This setting can be used to make the blue colour of water or the sky stronger, and to make dark, cold colours clearer.

The Cool option decreases the Low, Medium, and High density settings for Yellow and Magenta, and increases the Low, Medium, and High setting for Cyan.

Figure 17: Example of Cool

6

Background Suppression

Background Suppression, illustrated in Figure 18, prevents undesired marks or images that are printed on the back of an original from appearing on the output copy.

The Background Suppression feature reduces the Medium density settings for Yellow, Magenta, Cyan, and Black. The High density level for Black is increased.

Figure 18: Example of Background Suppression

Auto Suppression

Auto Suppression increases contrast and sharpness for clearer output.

1₂ 3. . .

1   Touch the **Preset Colour Balance** icon on the Image Quality tab to display the Preset Colour Balance screen, illustrated in Figure 19.

2   Touch the appropriate button for the desired colour balance.

3   Touch **Save** to return to the Image Quality tab.

Figure 19: Preset Colour Balance screen

6

Lighten/Darken

The Lighten/Darken feature (Figure 20) enables you to adjust the overall lightness or darkness (density) of the output copy. This feature offers an Auto Contrast option as well as seven lighten/darken levels.

The Normal level is the copier/printer default for Lighten/Darken. Use the Normal setting to copy original documents that appear to have the desired overall lightness or darkness.

When the Auto Contrast option is selected, the copier/printer determines the overall density of the document and adjusts the level accordingly.

Three different options are illustrated in Figure 21, Figure 22, and Figure 23.

KEY POINT: When the Lighten/Darken feature is set to Auto Contrast and the Original Type is Photo and Text or Text, the copier/printer applies an automatic background suppression function to the entire document. Background may be caused by images on the original document or by images or text on the back side of the document. The automatic background suppression function helps to reduce or eliminate the background in these situations.

Figure 20: Lighten/Darken feature

Figure 21: Auto Contrast image

Figure 22: Lightened image

Figure 23: Darkened image

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Figure 24: Lighten/Darken screen

The Background Suppression option in the Preset Colour Balance feature of the Image Quality tab may also be used to suppress background. Refer to the "Preset Colour Balance" section for more information.

1₂ 3...

1   Touch the **Lighten/Darken** icon on the Image Quality tab to display the Lighten/Darken screen, as illustrated in Figure 24.

2   Perform one of the following:

- Touch the **Auto Contrast** icon to have the copier/printer determine the darkness or lightness of the original document and adjust the output darkness or lightness automatically.

- Using the illustrated bar as a guide, touch the button under the section that best reflects the desired degree of darkness or lightness.

3   Touch **Save** to return to the Image Quality tab.

6

Colour Shift/Saturation

The Colour Shift/Saturation feature (Figure 25) allows you to shift all copy colours toward the adjacent hue as well as to adjust the overall richness of colour on the output copy.

Figure 25: Colour Shift/Saturation feature

Colour Shift

Colour shift is useful when the original does not have quite the correct colours for your needs. By touching one of the Colour Shift buttons, you can cause the overall copy colours to be shifted.

The illustration on the Colour Shift/Saturation screen helps you anticipate the results of the requested shift. The top bar illustrates the relationship between colours and adjacent hues. The lower bar shifts to the left or right to reflect your choice. When Normal is selected, the lower bar is centred below the upper bar. Figure 26 illustrates the Normal setting.

Figure 26: Normal

If you select one of the Warm buttons, the red colours shift toward the yellow hue, the green colours shift toward the cyan hue, and the blue colours shift toward the magenta hue. The lower bar shifts to the right. All colours in between these original colours also shift in the same direction. Figure 27 illustrates the Warm setting.

To continue the example, if you select one of the Cool buttons, the red colours shift toward the magenta hue, the blue colours shift toward the cyan hue, and the green colours shift toward the yellow hue. The lower bar shifts to the left. Again, all colours in between these original document colours also shift in the same direction. Figure 28 illustrates the Cool setting.

Figure 27: Colour shift toward Warm

Figure 28: Colour shift toward Cool

6

Saturation

The Saturation feature allows you to adjust the overall richness of colour on the output copy. Saturation is sometimes referred to as chroma. Colours with high saturation are sometimes called vivid colours.

The flower illustrations on the Colour Shift/ Saturation screen help you anticipate the results of the requested shift. The left flower illustrates the lightest pastel setting of saturation. The right flower illustrates the richest or most vivid saturation. The centre flower represents the default Normal saturation. No change is made to the flowers based on your selection.

Three levels of Saturation are illustrated in Figure 29, Figure 30, and Figure 31.

Figure 29: Normal saturation

Figure 30: Maximum saturation

Figure 31: Minimum saturation

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1₂ 3. . .

1   Touch the **Colour Shift/Saturation** icon on the Image Quality tab to display the Colour Shift/ Saturation screen, as illustrated in Figure 32.

Figure 32: Colour Shift/Saturation screen

2   Touch the button for the desired **Colour Shift** in the range from Coolest to Warmest.

3   Touch the button for the desired **Saturation** in the range from Most Pastel to Most Vivid.

4   Touch **Save** to return to the Image Quality tab.

6

Sharpness

The Sharpness feature (Figure 33) allows you to adjust the amount of edge definition on the copies. Five adjustment levels, corresponding roughly to the illustrations on the screen, are available.

NOTE: For optimum sharpness on the copies, it is important to select the correct Original Type for your input document in the Image Quality tab.

The Normal level is the copier/printer default for Sharpness. Use the Normal setting to copy documents that appear to have the desired amount of edge definition. Figure 34 illustrates the results of this setting.

Use the Soften levels to decrease the amount of edge definition to copy photographs or other documents where softer, less focused, output copies are desired. This option is especially desirable when copying very coarse dot screens. If Text has been selected as the Original Type, but the text is on a halftone background, selecting a softer sharpness level may give you better output. Figure 35 illustrates the results of this setting.

Use the Sharpen levels to increase the amount of edge definition for original documents such as maps, line art, or graphics that should have crisp lines. Figure 36 illustrates the results of this setting.

Figure 33: Sharpness feature
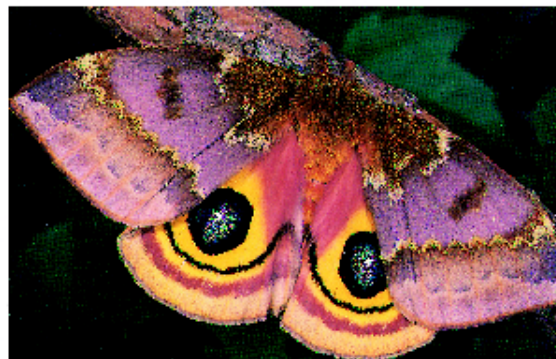
Figure 34: Normal Sharpness

Figure 35: Softer

Figure 36: Sharper

6

![1 2 3...]
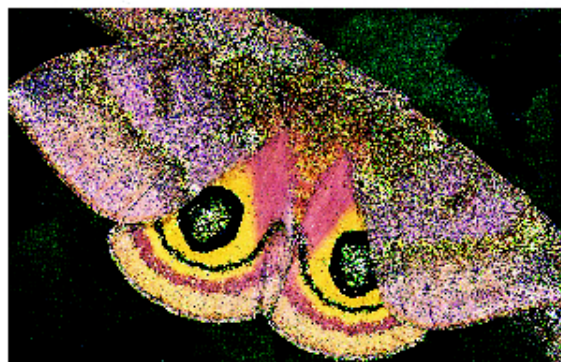
1   Touch the **Sharpness** icon on the Image Quality tab to display the Sharpness screen, as illustrated in Figure 37.

2   Using the diamond illustrations as guides, touch the button that best reflects the desired degree of softness or sharpness.

3   Touch **Save** to return to the Image Quality tab.

Figure 37: Sharpness screen

6

Variable Colour Balance

The Variable Colour Balance feature (Figure 38) allows you to adjust the balance between colours and the overall amount of colour on the output copies.

Figure 38: Variable Colour Balance feature

Variable Colour Balance provides you with the maximum range of colour control available. You can adjust the levels of all four process colours (Yellow, Magenta, Cyan, and Black) for areas of high, medium, and low density on the output copies. Three higher settings, three lower settings, and the normal (medium) settings are available for each density level of each colour. Each density level and each colour can be adjusted independently, and you can use any combination of adjustments.

Three different settings for Variable Colour Balance using Magenta are illustrated in Figure 39, Figure 40, and Figure 41.

KEY POINT: It is important to remember that adjusting the amount of any of the process colours has an effect on the other colours.

Figure 39: Normal

Figure 40: Maximum magenta

Figure 41: Minimum magenta

Figure 42: Colour Balance screen

1 2 3. . .

1   Touch the **Variable Colour Balance** icon on the Image Quality tab to display the Colour Balance screen, as illustrated in Figure 42.

2   Touch the button for the desired colour.

3   Select the desired density (low, medium, or high) and perform one of the following:

- Touch the **up** arrow to increase the amount of colour to be applied.

- Touch the **down** arrow to decrease the amount of colour to be applied.

4   If desired, repeat steps 2 and 3 for other colours.

5   Touch **Save** to return to the Image Quality tab.

6

6

7.   Output Formats

Overview

Figure 1: Output Formats Tab

The copier/printer enables you to specify
special output formats through the Output
Formats tab, illustrated in Figure 1:

Multiple-Up

The Multiple-Up feature enables you to copy
up to eight images from multiple originals onto
a single page.

Repeat Image

With Repeat Image, you can copy a single
image multiple times onto one page.

7

Transparency Separators

The copier/printer may produce transparencies with or without blank separators between them. Selecting this feature directs the copier/printer to insert the separators.

Invert image

Invert Image enables you to create negative, mirror, or negative mirror images on your output copy from the document that was placed on the Document Glass.

NOTE: Some Output Format features may require some special conditions. Some features may not be used with other features because of the multiple functions they perform to create the desired output. Make sure you read through the notes that detail the conditions or restrictions of each Output Format feature.

KEY POINT: After you select an option other than the default for a feature and save your selection and return to the tab, a check mark displays near the feature name and the selected value or option displays under the feature name.

7

Multiple-Up

The Multiple-Up feature (Figure 2) enables you to copy 2, 4, or 8 images from multiple originals onto a single page, as illustrated in Figure 3. Each image is centred in its space.

The default is set to 1 Page Up to produce a single image on a single page.

NOTE: Keep the following notes in mind when using Multiple-Up:

- All originals must be the same size. Paper size or magnification is determined by the first original that is scanned.

- Do not Interrupt the Multiple-Up job.

- The following features may not be used in conjunction with Multiple-Up:
    - Margin Shift
    - Repeat Image
    - Bound Originals

- When you copy original documents from the Document Glass, you can only select a 25-100% reduction.

- Depending on the size of the original, some image loss might occur along the edge of the image.

- Enlarged images cannot exceed 17 inches (432 mm) in the X direction.

- Do not use 12 x 18 inch or SRA3 paper.

The order and final rotation of images depend on the selections you make for the Image Order and Original Orientation options, which are described below.

Figure 2: Multiple-Up feature
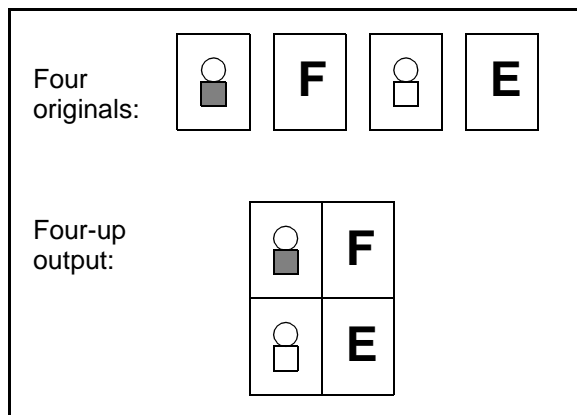
Figure 3: Example of Multiple-Up

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2 Pages Up

If you use the 2 Pages Up option, images are placed on the paper in one of the following ways illustrated in Figure 4:

- Left-to-right / top-to-bottom

- Right-to-left / top-to-bottom

- Top-to-bottom
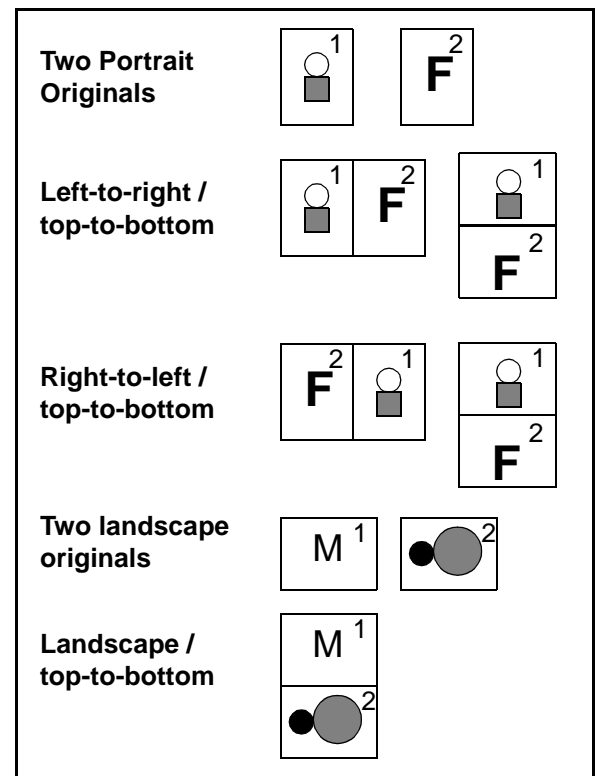
Figure 4: 2-Up image placement

4 Pages Up and 8 Pages Up

If you use the 4-Up or 8-Up option, images are placed on the paper in one of the following ways illustrated in Figure 5:

- Horizontally, beginning from the upper left corner

- Horizontally, beginning from the upper right corner

- Vertically, beginning from the upper left corner

- Vertically, beginning from the upper right corner

Four Portrait Originals

Horizontal, beginning from

Horizontal, beginning from upper right corner

Vertical, beginning from upper left corner

Vertical, beginning from upper right corner
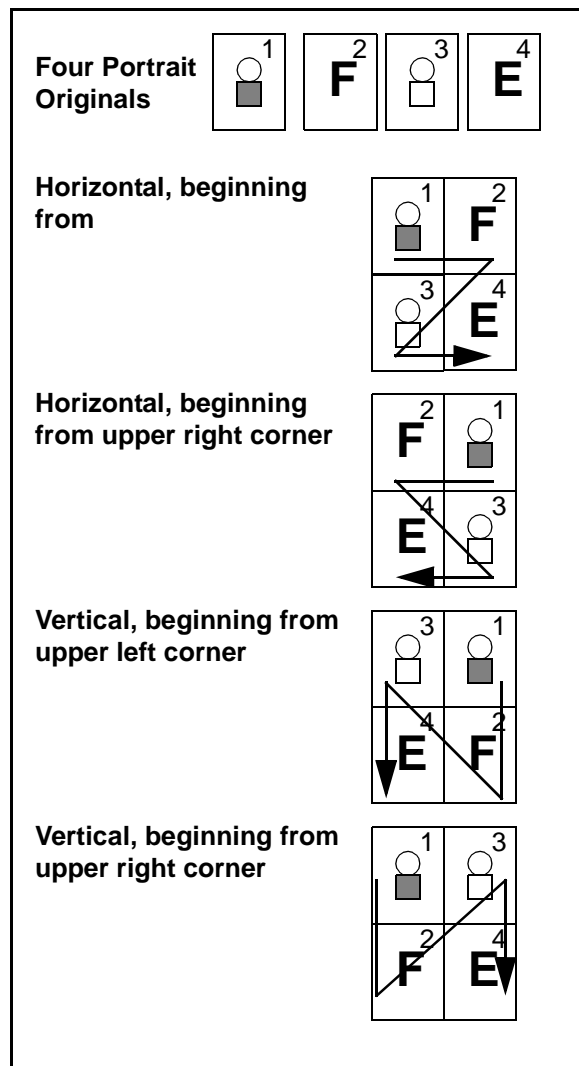
Figure 5: 4 Pages Up or 8 Pages Up image placement

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Number of images per page

Tables 1 and 2 will help you determine whether 2, 4 or 8 images can fit on a page without image loss due to differences in original document and output copy size. Images are centred in the image area.

When more originals are used than can fit on a single page, the extras are copied onto the next sheet with the same reduction or enlargement.

Original Document Size	Output Copy Paper Size			
	4.5 x 6 inches	5.5 x 8.5 inches	8.5 x 11 inches	8.5 x 17 inches
4.5 x 6 inches				
5.5 x 8.5 inches	8			
8.5 x 11 inches	4	8		
8.5 x 17 inches	2	4	8	

Table 3: Number of images per multiple-up page (US sizes)

Original Document Size	Output Copy Paper Size						
	A6	A5	A4	A3	B6	B5	B4
A6							
A5	8				8		
A4	4	8			4	8	
A3	2	4	8		2	4	8
B6	8						
B5	4	8			8		
B4	2	4	8		4	8	

Table 4: Number of images per multiple-up page (International sizes)

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1   Touch the **Multiple-Up** icon on the Output Formats tab to display the Multiple-Up screen, as in Figure 6.

Figure 6: Multiple-Up screen with default selected

2   Touch one of the following icons to display the appropriate detail screen, illustrated in Figure 7 and Figure 8:

- **1 Page Up** (default setting)

Figure 7: 2 Pages Up detail screen

- **2 Pages Up**

- **4 Pages Up**

Figure 8: 4 or 8 Pages Up detail screen

- **8 Pages Up**

3   If you selected the 2, 4, or 8 Pages Up icon, touch the icon that represents the desired Image Order to follow.

4   Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

5   Touch **Save** to display the Output Formats tab.

Repeat Image

The Repeat Image feature (Figure 9) enables you to copy a single image multiple times onto one page, as illustrated in Figure 10.

Figure 9: Repeat Image feature

The Repeat Image feature offers the following options:

Single Image

This is the default setting, which produces only one image per output page.

Auto Image Repeat

This option enables the copier/printer to automatically determine the number of output images that will fit on a single sheet.

Variable Image Repeat

With this option, you can specify the number of images that will print on a single sheet by selecting the number of columns and rows to print.

For example, if you select 1 columns of 4rows, 4 images print on the output, as illustrated in Figure 10. If you select 2 columns with 5 rows, 10 images print in two columns.
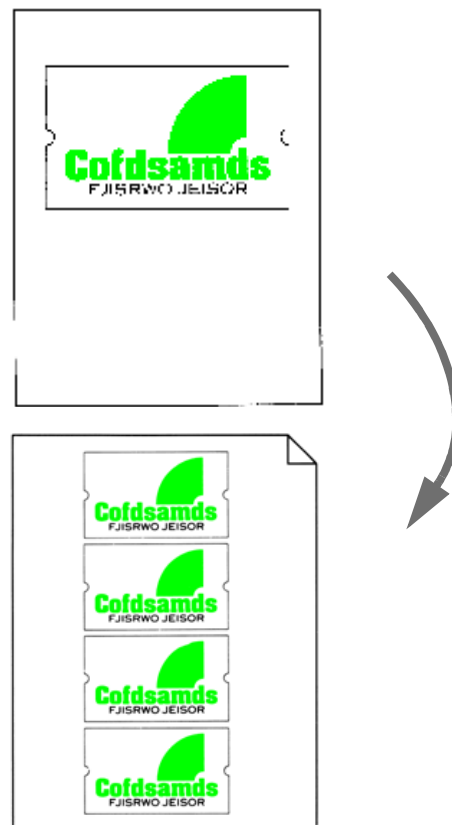
Figure 10: Example of Repeated Image

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NOTE: Remember the following notes when using Repeat Image:

- The original document must be placed on the Document Glass.

- The following features may not be used in conjunction with Repeat Image:
  – Reduce/Enlarge, Auto% options
  – 2 sided
  – Margin Shift
  – Multiple-Up
  – Variable Erase for the Centre Area
  – Bound Originals

- When you copy original documents from the Document Glass, you can only select a 25-100% reduction.

- Depending on the size of the original document, some image loss might occur along the edge of the image.

- Enlarged images cannot exceed 17 inches (432 mm) in the X direction.

- Do not use 12 x 18-inch or 12.6 x SRA3 paper.

The order and final rotation of images depend on the selections you make for the Image Order and Original Orientation options.

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1 Touch the **Repeat Image** icon on the Output Formats tab to display the Repeat Image screen, as in Figure 11.

Figure 11: Repeat Image screen

2 Touch one of the following options to display the appropriate detail screen:

- **Single Image**

- **Auto Image Repeat** (Figure 12)

Figure 12: Auto Image Repeat detail screen

- **Variable Image Repeat** (Figure 13)
   – Under the **Columns** title, touch the **up arrow** to increase the number of images to print in a column, or touch the **down arrow** to decrease the number of images to print in a column.

Figure 13: Variable Image Repeat detail screen

   – Under the **Rows** title, touch the **up arrow** to increase the number of images to print in a row, or touch the **down arrow** to decrease the number of images to print in a row.

   Notice that the values (ranging from 1 to 15) in the boxes increase or decrease according to your selection.

3 Touch the icon that most closely resembles the Original Orientation for the document on the Document Glass.

4 Touch **Save** to display the Output Formats tab screen.

7

Transparency Separators

When the Transparency Separators feature (Figure 14) is used, the copier/printer automatically inserts a blank sheet of paper between the transparency copies in the output tray.

Figure 14: Transparency Separators feature

The Transparency Separator feature offers the following options:

No Separators

This is the default setting, which you select for normal copy jobs and for transparency copies without blank sheets between them.

Blank Separators

This option enables the copier/printer to insert a blank sheet between every transparency, as illustrated in Figure 15.

When you select this option, the screen displays a Paper Trays detail area. In this area, you can access the Tray Settings screen to specify which tray to use as the source for the separators.

KEY POINT: For this feature to operate, make sure there is paper of the same size and orientation in a tray other than Paper Tray 5.

Figure 15: Example of Transparencies with Blank Separators

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NOTE: Remember the following notes when using Transparency Separators:

- Do not interleave paper and transparencies in Paper Tray 5. Jams may occur.

- The paper used as separators must be the same size as the transparencies.

- Do not use heavy paper as separators.

- The following features may not be used in conjunction with Transparency Separators:

  – Multiple-Up

  – 2 Sided

  – Repeat Image

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![1 2 3...]

1   Touch the **Transparency Separators** icon on the Output Formats tab to display the Transparency Separators screen.

2   Touch one of the following options:

- **No Separators** (Figure 16)

- **Blank Separators**
    – Ensure that the Paper Tray listed for the separators is holding the correct size and type of paper.
    – If you need to make changes to the separator paper tray, touch the copier/printer icon in the Paper Trays area (Figure 17) to display the Tray Settings screen. Notice that only Paper Tray 5 is selectable as the transparency tray.
    – You may have to touch the Tray 5 icon and select a Paper Type (Transparency) and size before the system allows you to save these values and select a Separator Tray.
    – Under Separator Tray (Figure 18), select the paper tray to use as a source for the separators.
    – Touch **Save** to return to the Transparency Separators screen.

3   Touch **Save** to display the Output Formats tab.

Figure 16: Transparency Separators screen with No Separators selected

Figure 17: Transparency Separators screen with Blank Separators selected

Figure 18: Separator Tray screen

7

Invert Image

With the Invert Image feature (Figure 19), you are able to create a mirror image, negative image, or negative mirror image.

Figure 19: Invert Image feature

Mirror image

When the Mirror Image feature is selected, the output copy of the entire document area appears as a mirror image reflection of the document that was placed on the Document Glass. Figure 20 provides an illustration of a mirror image.

KEY POINT:

- Mirror Image applies to the entire document. Specific areas of the document cannot be selected.

- If Corner Shift or Variable Shift in the Added Features tab is selected, the direction of image movement on the copy is the opposite of what it would be without Mirror Image selected. (For example, if Variable Margin Shift is selected and the image is programmed to move to the right, the image would actually be moved to the left if Mirror Image is selected.)
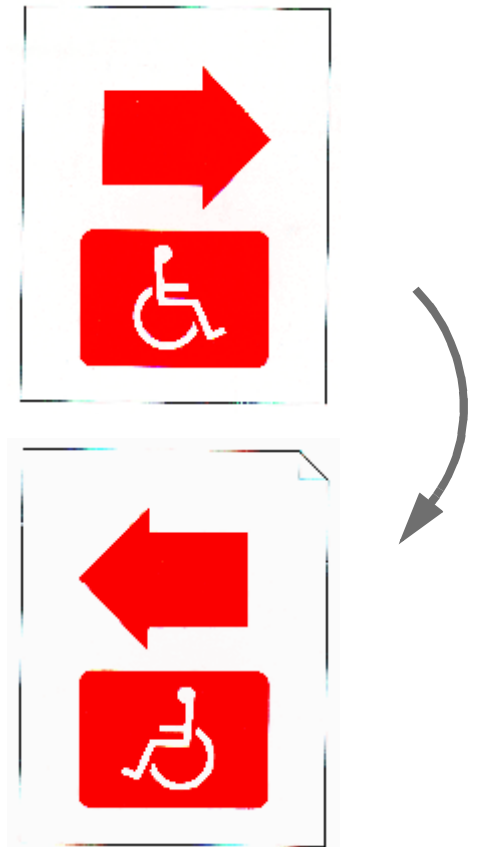
Figure 20: Example of a mirror image

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1 Touch the **Invert Image** icon on the Output Formats tab to display the Invert Image screen, as illustrated in Figure 21.

Figure 21: Invert Image screen

2 Touch the **Mirror Image** icon to display the Mirror Image screen, as illustrated in Figure 22.
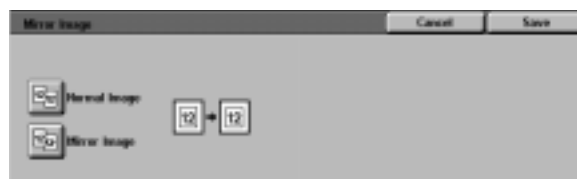
Figure 22: Mirror Image screen

3 Perform one of the following:

- Touch the **Normal Image** button to restore the default.

- Touch the **Mirror Image** button to select the mirror image option.

4 Touch the **Save** button to display the Invert Image screen.

5 Touch the **Save** button to display the Output Formats tab.

7

Negative Image

The Negative Image feature reverses the colours of the whole document image.

This feature has two options:

- **Positive Image**

  This produces a copy that looks like the original document, as illustrated in Figure 23. This is the default setting.

- **Negative Image**

  With this option, the positive colours are converted to their complements. Full colour or 3-pass colour positive image colours become negative image colours or the complementary colours of the positive.

  The simplest example of negative imaging is from white to black, as illustrated in Figure 24. White is the negative colour of black. If a black image on a white background is copied in this mode, the image is copied as white, and the background is black.

  With the Negative Image option, you can select a single output colour to produce a copy that has the selected colour as the background colour with shades of the colour in the image area.

Figure 23: Sample positive image

Figure 24: Sample negative image

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1 Touch the **Invert Image** icon on the Output Formats tab to display the Invert Image screen as illustrated in Figure 25.

Figure 25: Invert Image screen

2 Touch the **Negative Image** icon to display the Negative Image screen, as illustrated in Figure 26.

3 Perform one of the following:

- Touch the **Positive Image** icon to restore the default.

- Touch the **Negative Image** icon to select a negative image or image inversion.

Figure 26: Negative Image screen

4 Touch the **Save** button to display the Invert Image screen.

5 Touch the **Save** button to display the Output Formats tab.

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8.   Job Assembly

Overview

Figure 1: Job Assembly Tab

In the Job Assembly tab, illustrated in Figure 1, you can use the following feature:

Stored jobs

This feature enables you to store frequently-used feature settings in the built-in copier/printer memory. You can recall these settings as needed.

KEY POINT: After you select an option other than the default for a feature and save your selection and return to the tab, a check mark displays near the feature name and the selected value or option displays under the feature name.

Stored Jobs

The Stored Jobs feature (Figure 2) allows you to program various feature settings in the built-in copier/printer memory as a single "job." Up to 10 jobs can be stored in the built-in copier/printer memory. This feature is especially helpful for complex jobs that you run frequently.

Figure 2: Stored Jobs feature

You can retrieve stored jobs and apply their programming to a new copy job. Deleting stored jobs frees that memory position for storing different jobs.

Use the job number buttons to assign, access, or delete the jobs that have been stored in the copier/printer memory and to indicate the next available memory position. You may want to record the job details with the job number ina notebook for future reference.

Store a job

1 Program the features and options you want to save for future use.

2 Touch the **Stored Jobs** icon on the Job Assembly tab to display the Stored Jobs screen, as illustrated in Figure 3.

3 Touch the **Store Job** option.

Figure 3: Stored Job option selected

4 Touch the desired icon to identify the job number.

Record this number and the job details for future reference.

5 Touch **Confirm** to display the Job Assembly tab.

Retrieve a job

1₂ 3...

1   Touch the **Stored Jobs** icon on the Job Assembly tab to display the Stored Jobs screen, as illustrated in Figure 4.

2   Touch the **Retrieve Job** option to display all stored jobs. Only those buttons associated with jobs will be selectable.

3   Touch the button for the job (1-10) to be retrieved.

4   Touch the **Confirm** button.

5   Press the **Start** button to process the job.

Figure 4: Retrieve Job option selected

Delete a job

1 Touch the **Stored Jobs** icon on the Job Assembly tab to display the Stored Jobs screen.

2 Touch the **Delete** option to display all stored jobs, as illustrated in Figure 5. Only those buttons associated with jobs will be selectable.

3 Touch the button for the job to be deleted. A confirmation screen displays.

Figure 5: Delete job option

4 Perform one of the following:

- Touch the **Yes** button to confirm the deletion.

- Touch the **No** button to cancel the deletion.

5 Touch the **Confirm** button to display the Job Assembly tab.

You can now store a new job in the copier/ printer memory in place of the job you deleted.

9. Paper

Overview

This chapter contains basic information about loading paper or transparencies and about using paper trays. It also includes some paper usage guidelines for the DocuColor 12.

Good quality, 24 lb (90 gsm) bright, white paper with a smooth finish is the standard for colour output, as it reduces show-through on 2-sided output and provides the best quality output. Good quality 20 lb (80 gsm) paper is the standard for black and white output.

Paper Trays 1, 2, 3, and 4

Paper Trays 1, 2, 3, and 4 hold the paper supply for the DocuColor 12 colour copier/printer.

Paper Tray 1, illustrated in Figure 1, can accommodate 8.5 x 11 inch, A4, B5, or A5 paper.

Paper Trays 2, 3, and 4, illustrated in Figure 1, can accommodate an assortment of standard paper sizes, from 8 x 10 inch through 17 x 11 inch, and B5 through A3.

Trays 2, 3, and 4 have width and length adjustment guides that should be adjusted if the paper size in the tray needs to be changed.

NOTE: Paper Trays 2, 3, and 4 can also accommodate 12 x 18 inch paper through a special, optional tray setup procedure performed by a Xerox service representative. If you are interested in this capability, contact your Xerox service representative.

Refer to the *Recommended Materials for the DocuColor 12* for more information about the materials you can use in Paper Trays 1, 2, 3, and 4.
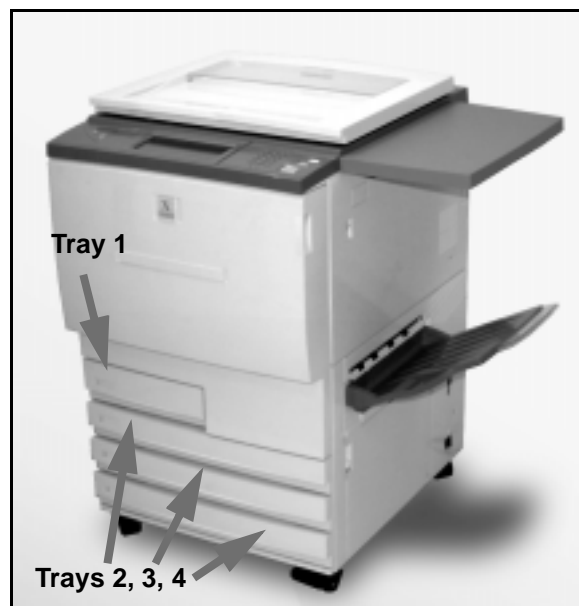
Figure 1: Paper Tray 1

Paper Tray 5

Paper Tray 5 (sometimes called the Bypass Tray or the Multiple Sheet Inserter) is located on the left side of the copier/printer, as illustrated in Figure 2. Paper Tray 5 can accommodate transparencies and other specified paper stocks, and various paper sizes up to 12 x 18 inches or SRA3 (320 x 450 mm).

Refer to the *Recommended Materials for the DocuColor 12* for more information about the materials you can use in Paper Tray 5.

CAUTION: Do not place any objects or materials other than the appropriate stock on Paper Tray 5. Copier/printer damage may occur.

Figure 2: Paper Tray 5

Auto Tray Switching

The Auto Tray Switching feature enables the copier/printer to switch automatically to another tray when a tray runs out of paper. The trays must be loaded with the same size paper in the same orientation (long edge feed or short edge feed). Also, Auto Tray Switching must be enabled in the Tools mode, with the same paper type assigned to two or more trays.

Auto Tray Switching may be enabled only for Paper Trays 1, 2, 3, and 4. Paper Tray 5 cannot be enabled for Auto Tray Switching.

Auto Tray Switching is active only if the Auto paper supply button is selected.

The default for Auto Tray Switching is ON with Paper Trays 1, 2, 3, and 4 enabled. To use Auto Tray Switching with the default settings, load the trays you want to use with the same size paper in the same orientation. Select the paper tray button for the tray with the lowest number on the Control Panel.

For example, if you load trays 2 and 3 with the same size paper in the same orientation, select the Tray 2 Paper Supply button on the Basic Copying tab of the Touch Screen. The copier/printer draws paper from Tray 2 until it is depleted, then switches automatically to Tray 3.

Loading stock

Using paper

The front and back surfaces of a piece of paper differ slightly. Therefore, one side is preferred as the side to image when copying to one side only, or the side to image first if copying to two sides.

Some ream wrappers mark this preferred printing side (also called the wire side) with an arrow. If the arrow is not present, turn the ream over so the seam is facing up.

Load the paper into Paper Trays 1, 2, 3, and 4 with the preferred printing side down. With the wrapper seam facing **up** (illustrated in Figure 3), remove the paper from the wrapper and load without turning it.

Load the paper into Paper Tray 5 with the preferred printing side up. With the seam facing **down**, remove the paper from the wrapper and load it without turning it.

The sheet capacity of the tray varies with the paper weight that is loaded in the tray. Refer to the Paper Usage section in this chapter for the recommended paper stock selections, or refer to the *Recommended Materials for the DocuColor 12.*

Figure 3: Opening a ream of paper with seam side up

KEY POINT:

- For the best results, use only the recommended paper sizes, paper weights, or paper types. If you do not use recommended papers, you may experience copy quality problems, paper jams, or possible component failures.

  Refer to the *Recommended Materials for the DocuColor 12* for more information.

- If you are loading pre-drilled paper, load it into Paper Tray 5 with the undrilled long edge as the leading edge (holes to the left).

- Do not load the paper above the fill line of the paper tray edge guides.

- Straighten the paper stack each time the paper tray is opened. Close the paper tray slowly to avoid shifting the paper stack. This ensures that the paper is in the correct position when the paper tray is in the operating position.

- If paper feeding or copy curl problems occur, flip the paper over in the tray and make the copies again. If the performance improves, continue to load the paper in this manner. Testing has shown that paper handling and copy performance vary with room temperature, humidity, paper quality, image area on copies, etc. All of these variables interact and, in some cases, you must decide which paper loading method works best.

Using transparencies

Transparencies can be run ONLY from Tray 5.

Transparencies with removable lead edge paper stripes are recommended.

KEY POINT: Use only the transparencies recommended in the *Recommended Materials for the DocuColor 12*.

Before you load transparencies, you must determine which side has the white stripe. Use a soft lead pencil to make a small mark on the stripe on each side of the transparency. The side with the darker mark is the stripe side.

Load transparencies with the white stripe side facing down and as the leading edge, as illustrated in Figure 4. (The leading edge is the edge that feeds into the copier/printer first.)

You can program the copier/printer to insert a blank separator between transparencies by using the Transparency Separator feature on the Output Formats tab. Refer to the section "Output Formats" for more information.

KEY POINT: Follow these guidelines to prevent static build up when using transparencies:

- Place no more than twenty-five 8.5 x 11 inch or A4 transparencies in Paper Tray 5 at one time.

- Place only one 11 x 17 or A3 transparency in Paper Tray 5 at a time.

- Remove the transparencies from the Output or Offset Catch Tray before running additional sets.

NOTE: If the copier/printer has a Sorter/Mailbox, the transparency copies are delivered to the Offset Catch Tray. Transparencies cannot be sorted or stacked in separate bins.

White stripe down and as leading edge

**Figure 4: Loading transparencies
in Paper Tray 5**

Loading paper into trays 1, 2, 3, and 4

1₂ 3. . .

1 To load a paper tray, pull the tray out fully, as illustrated in Figure 5.

Figure 5: A fully opened Paper Tray

2 Select the appropriate paper to load.

If you are not sure of the size to load, refer to the Paper Supply feature on the Basic Copying tab to check the size that was previously loaded in the paper tray.
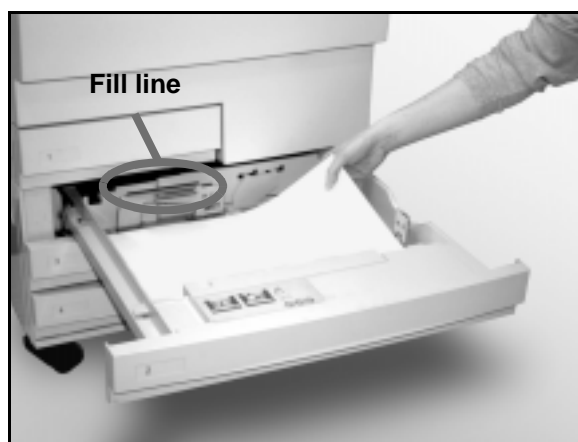
Figure 6: Loading a Paper Tray

3 Load the desired size paper into the tray, as illustrated in Figure 6.

Do not fill the paper tray above the fill line, illustrated in Figure 6 and Figure 7.

Figure 7: Adjusting the Rear Paper Guide

4 In Paper Trays 2, 3, and 4, straighten the paper stack and adjust the paper guides until they lightly touch the paper.

Figure 8: Adjusting the Right Paper Guide

5 Close the paper tray slowly to avoid shifting the paper stack. This ensures that the paper is in the correct position when the paper tray is in the operating position.

Loading stock into Paper Tray 5

The number of sheets that can be loaded in Paper Tray 5 (sheet capacity) varies with the weight of the stock. For more information about paper weight and requirements, refer to the *Recommended Materials for the DocuColor 12*.

Do not load materials above the fill line located on the paper guide.

KEY POINT: Because of the paper path design of Paper Tray 5, paper stocks that cause difficulties being fed from Paper Tray 1, 2, 3, or 4 may be fed more reliably from Paper Tray 5.

NOTE: Remove all stock from Paper Tray 5 after the job is complete. Dust and moisture can cause copy quality defects.

Do not add paper during a copying job.

Figure 9: Paper Tray 5

- To prevent damage, close Paper Tray 5 when you are not using it.

- If you are loading pre-drilled paper, load it with the undrilled long edge as the leading edge (holes to the left).

- Load letter-head paper face up.

- If you are loading transparencies, load them with the white stripe side facing down and as the leading edge. (The leading edge is the edge that feeds into the copier/printer first.)

- Follow these guidelines to prevent static build up when using transparencies:

  – Place no more than twenty-five 8.5 x 11 inch or A4 transparencies in Paper Tray 5 at one time.

  – Place only one 11 x 17 or A3 transparency in Paper Tray 5 at a time.

  – Remove the transparencies from the Output or Offset Catch Tray before running additional sets.

- Do not interleave transparencies with paper in Paper Tray 5. Select the Transparency Separator feature and the copier/printer will insert blank sheets from a different paper tray between the output transparencies loaded in Paper Tray 5.

1₂ 3...

1 Open Paper Tray 5 by grasping the cover Tray 5 at the top in the middle and gently pushing it away from the copier/printer and down, as illustrated in Figure 10.

Figure 10: Opening Paper Tray 5

For long paper, extend the tray by grasping the long plastic tab at the left edge (Figure 11) and pulling it to the left as far as possible, as illustrated in Figure 12.

If you do not extend the tray fully, paper jams or copy misregistration may occur.

CAUTION: Do not place any objects or materials other than the appropriate stock on Paper Tray 5. Copier/printer damage may occur.

Figure 11: Grasping the Paper Tray 5 tab
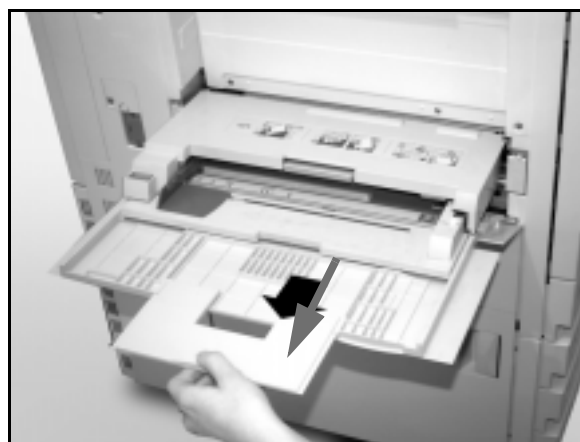
Figure 12: Extending Paper Tray 5

2 Place the stack of materials onto Paper Tray 5 between the edge guides, as illustrated in Figure 13. Slide the stack into the tray until it stops.

3 Move the back edge guide until it lightly touches the side of the stack of materials. Readjust the left edge guide each time you load materials into Paper Tray 5.

4 Select the appropriate size and type for the stock you have loaded. Refer to "Programming the Paper Supply for Tray 5" for more information.

5 When you are done using Paper Tray 5, remove all stock and store it appropriately. Close Paper Tray 5 by gently pushing the plastic extensions to the right as far as possible. Push Paper Tray 5 toward the copier/printer until it is securely in place.

Edge guides
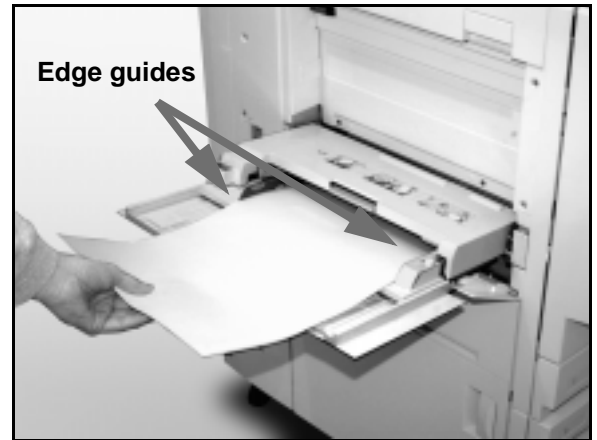
Figure 13: Loading paper into Paper Tray 5

Using 12 x 18 inch or SRA3 paper

Use Paper Tray 5 for 12 x 18 inch (305 x 457 mm) or SRA3 (320 x 450 mm) paper.

Refer to the *Recommended Materials for the DocuColor 12* for more information about the paper you are loading.

NOTE:

- Remove all stock from Paper Tray 5 after the job is complete. Dust and moisture can cause copy quality defects.

- Do not add paper during a copying job.

- To prevent damage, close Paper Tray 5 when you are not using it.

- The guaranteed image area for the DocuColor 12 is 297 x 438 mm. When copying an 11 x 17 inch (A3) image from the Document Glass, set the Reduce/Enlarge feature to 102% for best results.

1_2 3. . .

1   Open Paper Tray 5 and fully extend the tray to place it in the operating position. Refer to the instructions in the previous section, if necessary.

2   Adjust the front Paper Guide of Paper Tray 5:

   1. Unscrew the registration thumb screw, illustrated in Figure 14, on the front side of Paper Tray 5.

   2. Lift and reposition the Paper Guide in the slot appropriate for the paper size you are using.

   3. Tighten the registration thumb screw.

Figure 14: Front Paper Guide and registration thumb screw

3   Load up to 100 sheets of 12 x 18 inch (305 x 457 mm) or SRA3 (320 x 450 mm) 20 lb (80 gsm). paper into Paper Tray 5. (Remember that images are copied onto the upper side of the paper.)

4   Adjust the back edge guide until it lightly touches the paper.

5   Select the appropriate size and type for the stock you have loaded. Refer to "Programming the Paper Supply for Tray 5" for more information.

6   When the job is complete, return the paper guides for Paper Tray 5 to their normal position.

9

Paper Usage

This section provides a quick summary of useful information about paper for the DocuColor 12 copier/printer.

For additional general information, refer to the *Colour Materials Usage Guide*.

For additional specific information regarding materials that have been tested and approved for use in the DocuColor 12, refer to the *Recommended Materials for the DocuColor 12*. This list is available off the main Xerox web site (www.xerox.com) and will be updated periodically. Contact your Xerox representative for additional details.

Stock is classified according to the following categories:

- Excellent – Provides reliable feeds and optimum copy quality

- Good – Provides less reliable feeds and may result in copy quality degradation

- Not Recommended – Does not feed reliably and/or may cause severe copy quality degradation

For more information about materials that may be fed through Paper Tray 5, refer to the *Recommended Materials for the DocuColor 12*.

PAPER	Excellent	Good	Not Recommended
Size	• 7.2 x 7.2 to 11 x 17 inches • A4 to A3	• 12 x 18 inches • 4 x 6 inch postcard • SRA3 • A6	• Smaller than 7.2 x 7.2 inches Larger than 12 x 18 inches or SRA3 (320 x 450 mm) • Any sizes between 11 x 17 inches and 12 x 18 inches or between A3 and SRA3
Capacity	Using Xerox 20 lb (80gsm): • Paper Tray 1: 500 sheets • Paper Trays 2, 3, 4: 550 sheets		
Weight	• Paper Tray 1: 16 lb to 28 lb Bond (64 gsm to 105 gsm) • Paper Trays 2, 3, 4: 16 lb to 32 lb Bond (64 gsm to 128 gsm) • Paper Tray 5: 16 lb Bond to 140 lb Index (64 gsm to 250 gsm)		• Paper Tray 1: greater than 28 lb (105 gsm) • Paper Trays 2, 3, 4: greater than 32 lb Bond (128 gsm) • Paper Trays 1, 2, 3, 4, 5: less than 16 lb (64 gsm) • Paper Tray 5: greater than 140 lb Index (250 gsm)
Paper Condition	Undamaged		• Damaged or wrinkled paper • Papers with excessive curl • Papers exposed to extreme environmental conditions, such as high humidity or high temperature, for an extended period of time

Table 5: Paper Usage

PAPER	Excellent	Good	Not Recommended
Paper Type	• Xerox Colour Xpressions or Xerox Europe Colotech + paper • Xerox 4024 DP or Xerox Europe Premier for black only • Xerox or Xerox Europe recommended transparencies - long edge feed (White stripe: load the white stripe edge face down and as the leading edge from Paper Tray 5 only) • Paper equivalent to recommended papers: white/bright, smooth surface, uncoated, uniform formation (uniform distribution of paper fibers) • Predrilled stock - The copied image MUST NOT extend into the hole area, or copier/printer damage may result. (Load this paper into Tray 5 for best results with holes on the left.)	• Laserprint paper • Xerographic copy paper • Coloured paper* • Coated papers	• Paper with poor formation (nonuniform distribution of paper fibers) • Carbonless papers • Clear transparencies (no stripe) • Rough paper • Short edge feed transparencies • Stiff paper (>250 gsm)

Table 5: Paper Usage

* In general, colour paper is recommended for black only.

9

10. Duplex Automatic Document Feeder

Overview

This chapter describes the Duplex Automatic Document Feeder (DADF), illustrated in Figure 1, for the DocuColor 12 copier/printer.

The DADF automatically feeds up to 50 of the same size documents or mixed size documents, one at a time, onto the Document Glass, feeding the top sheet first.

KEY POINT:

- The copier/printer automatically copies black and white documents in the Black mode and documents with colour in the Full Colour mode when Auto Output Colour is selected.

- If the DADF belt is dirty and the original is a thin or transparent document, background may appear on the output. This may also occur when copies are made using the Document Glass. Place a white sheet of paper of the same size on top of the document being copied to eliminate background until the belt is cleaned.

NOTE: Using the DADF, black and white output is produced at 40 copies per minute.

Figure 1: DocuColor 12 with a Duplex Automatic Document Feeder

If you use the DADF to input the original documents, the output will be delivered in one of the following ways, assuming a three-page job.

- In a basic, single-copy job, output is delivered face down in 1, 2, 3 order.

- In a multiple-copy job, output is delivered to the Output Tray face up with copies of the first page on the bottom and copies of the last page on top in 3/3/3, 2/2/2, 1/1/1 order.

- In a multiple-copy job using a Sorter/Mailbox, one set of output is delivered, face down, to each of three separate bins in 1, 2, 3 order.

WARNING: Never open the cover of the Duplex Automatic Document Feeder while the copier/printer is running. Injury or a document jam may occur.

Never cheat the safety interlock switches. They control the built-in safety features of the feeder.

Component names and functions

The following items are the principal components of the Duplex Automatic Document Feeder, as illustrated in Figure 2:

1 Document Feed Lamp

This lamp displays a green arrow when a document is inserted correctly into the feeder. This light can also indicate a document jam.

2 Document Feeder Output Tray

Documents are delivered to this tray.

3 Duplex Automatic Document Feeder Tray

Place documents here to start copying.
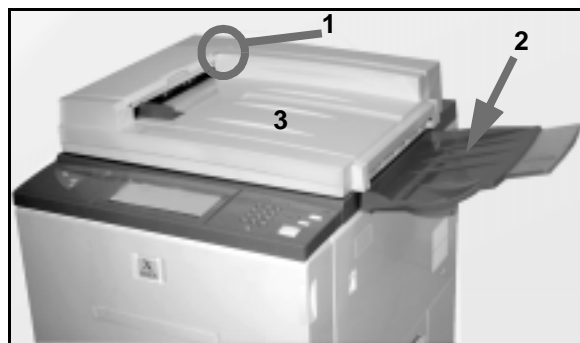
Figure 2: Duplex Automatic Document Feeder components

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Document path

Documents placed on the Duplex Automatic Document Feeder Tray feed in top-to-bottom sequence directly onto the Document Glass.

Documents are delivered to the Document Output Tray after they have been copied.

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Document specifications

Always use the recommended types of input documents so that the Duplex Automatic Document Feeder operates within the design specifications. Document jams may occur if non-standard documents are used, resulting in damaged documents.

Standard DADF document specifications

- Weight – The document weight should be from 16 lb to 32 lb (64 to 128 gsm).

- Size

  - North and South America

    8.5 x 5.5 inches, 8.5 x 11 inches, 8.5 x 14 inches, 11 x 17 inches, A4.

  - European market

    A5, A4, A3, 8.5 x 13 inches, 8.5 x 14 inches, 8.5 x 11 inches, 11 x 17 inches.

If the DADF senses non-standard size documents in the feeder, a message displays and the copier/printer stops. Place such non-standard documents on the Document Glass, or enter the document size by using the Original Size feature in the Added Features tab. Refer to the section "Added Features" for more information.

If the input document is slightly smaller or larger than a standard size document, the Duplex Automatic Document Feeder may detect it as a standard size document. Dark areas or an image loss along the edges may occur. Enter the document size by using the Original Size feature or use the Edge Erase feature in the Added Features tab. Refer to the section "Added Features" for more information

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Documents not recommended

The following document types cause document jams or malfunction of the copier/printer. Make copies of these documents by placing them directly onto the Document Glass.

- Pamphlets and bound documents

- Broken, creased, or paste-up documents

- Documents with clips and staples

- Transparent documents (the document size cannot be detected automatically, or the black belt is copied)

- Documents with black carbon

- Documents smaller than A5 size (8.5 x 5.5 inches)

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Loading the documents

You can load up to 50 documents into the DADF.

1₂ 3. . .

1 Remove any paper clips or staples from the documents. Align the documents.

2 Place the documents face up onto the DADF Tray, as illustrated in Figure 3. Slide the documents to the left until the green Document Feed Lamp lights.

If the lamp does not light, readjust the alignment and/or the placement of the documents until the lamp lights.
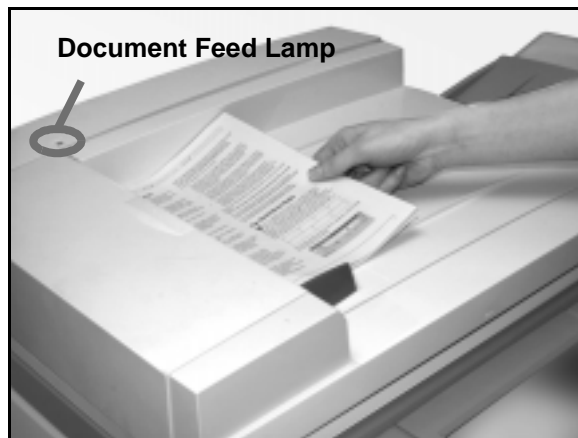
Figure 3: Placing documents in the DADF tray

3 Slide the document guide toward the stack of documents until the guide lightly touches the side edges of the documents, as illustrated in Figure 4. If the document guide is set too tight, the documents may not feed or may become damaged. If the guide is set too loose, the documents may skew as they feed, which could cause a document jam.
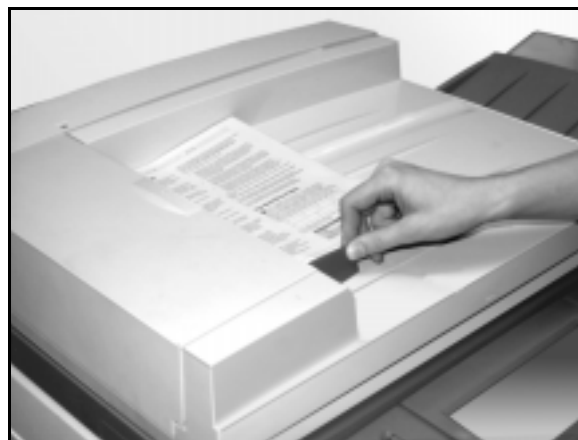
Figure 4: Adjusting the document guide

4 Extend the DADF Output Tray to accommodate the size of the documents, as illustrated in Figure 5.

5 Press the **Start** button.

The documents automatically feed one by one, onto the Document Glass. The feeding begins from the top of the stack of documents.
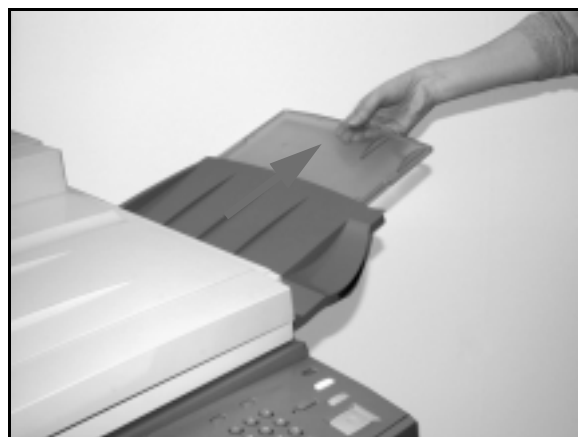
Figure 5: Extending the DADF Output Tray

Clearing a document jam

When a document jam occurs in the Duplex Automatic Document Feeder, the Document Feed Lamp (Figure 6) lights and instructions for clearing the jam appear on the screen display.
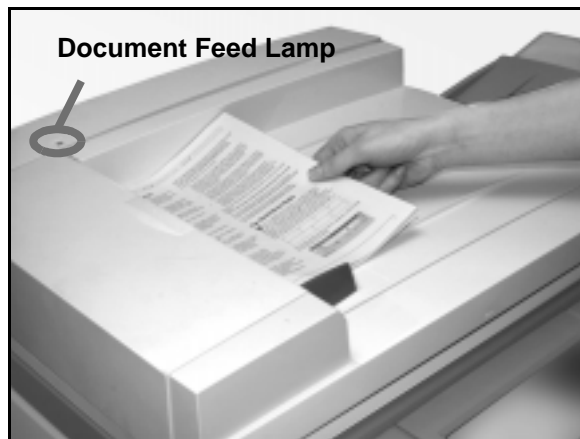
Figure 6: Document Feed Lamp

1 Open the Left Cover by lifting it to the left and open the Document Chute, as illustrated in Figure 7.
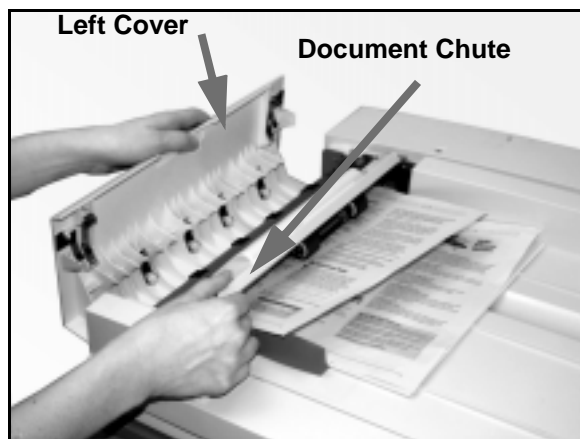
Figure 7: Opening the Left Cover and the Document Chute

2 Remove the jammed documents. Check for and remove any torn pieces of paper.

3 Close the Document Chute and lower the Left Cover.

4 Slide the Document Guide away from the stack of documents, as illustrated in Figure 8. Remove the documents from the Document Feeder Tray.
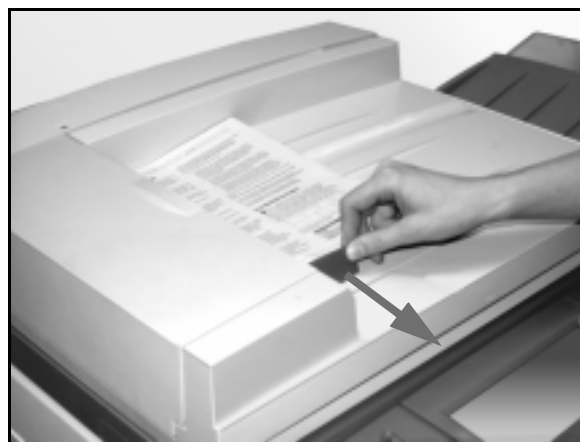
Figure 8: Sliding the Document Guide

5 Raise the DADF and remove any documents from the Document Glass, as illustrated in Figure 9.

Figure 9: Raising the DADF

6 Remove any paper that is jammed in the DADF belt, as illustrated in Figure 10.

7 Close the DADF.

8 Check the documents for damage, creases, and/or folds before reloading them into the Document Feeder Tray.

A torn, creased, or folded document can cause a document jam.

KEY POINT: If a document is damaged, you may have to use Interrupt mode to make a copy from the Document Glass. You can then return to the original job and use the copy instead of the damaged document in the stack of documents you are copying.

Figure 10: Removing jammed paper

9 Check the message on the screen to ensure that all jams have been cleared.

10 Reload the stack of documents into the Duplex Automatic Document Feeder according to the instructions on the Touch Screen. Reposition the document guide.

11 Press the **Start** button to restart your copy job.

10

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11. Sorter/Mailbox

Overview

The DocuColor 12 copier/printer may be equipped with an optional Sorter/Mailbox, as illustrated in Figure 1. The Sorter/Mailbox contains the following components:

1 Sorter/Mailbox Release Lever

2 Sorter/Mailbox Bins: Copies are delivered here in the Sort or Stack Mode.

3 Offset Catch Tray (OCT): Output is delivered here when you select the Offset Catch Tray.

When the unit is attached to a copier only, the Offset Catch Tray acts as a high capacity catch tray and does not offset output.

4 Right and Left Front Doors: Open these doors to clear paper jams.

WARNING: Do not place your fingers between the Bins while the Sorter/Mailbox is in operation.

WARNING: Never cheat the safety interlock switch. Injury or a document jam may occur.

This switch shuts off the Sorter/Mailbox power when you open the front doors or when you move the Sorter/Mailbox to the right to clear a paper jam.
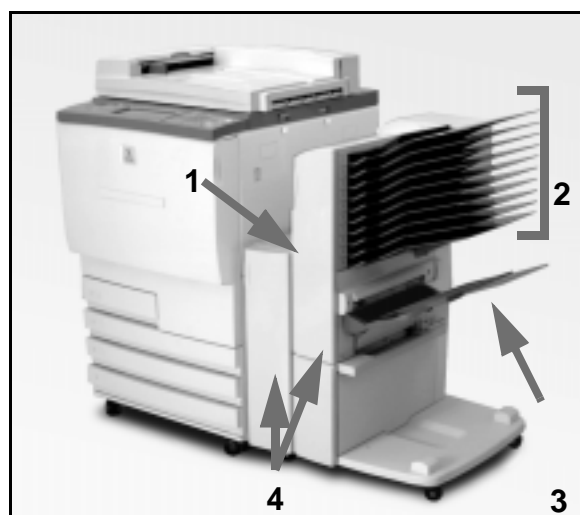
Figure 1: DocuColor 12 with Sorter/Mailbox

11

Using the Sorter/Mailbox

The optional Sorter/Mailbox performs like a sorter for the DocuColor 12 standalone copier configuration. It performs like a sorter or mailbox for the DocuColor 12 copier/printer configuration. Contact your Xerox representative to change functionality.

When you use the optional Sorter/Mailbox, copies are delivered to the Sorter/Mailbox Bins or the Offset Catch Tray in one of the following ways:

- Collated

  Copies are sorted in the Sorter/Mailbox Bins with one set of output is delivered face down to each required bin in the same sequence as the original documents.

  For example, in a three-page job where 3 sets are requested, one set of output is delivered, face down, to each of three separate bins in 1, 2, 3 order.

- Uncollated

  Copies are stacked sequentially in the Sorter/Mailbox Bins by page numbers of the documents.

  For example, in a three-page job where 3 sets are requested, one set of output is delivered, face up, in 1/1/1, 2/2/2, 3/3/3 order. This results in all copies of the first page being at the bottom of the set and all copies of the last page being on the top of the set.

Each Sorter/Mailbox bin can hold up to 100 copies of 20 lb (80 gsm) paper.

The Sorter/Mailbox can accept paper sizes from 8.5 x 11 inches (A4) to 11 x 17 inches (A3).

If you copy onto transparencies using Paper Tray 5, the copies and separators are delivered to the Offset Catch Tray.

NOTE:

- Any job that uses Paper Tray 5 is always delivered to the Offset Catch Tray.

- The number of collated sets is limited to 10, the number of bins.

Clearing a paper jam

When a paper jam occurs, a paper jam message and instructions for clearing the paper jam display on the screen.

KEY POINT: Remove the jammed paper carefully and gradually so you do not tear it. If the jammed paper tears, be sure to remove all the torn pieces.

1   Push the Sorter/Mailbox release lever toward the Sorter/Mailbox and pull the unit to the right, away from the copier/printer, as illustrated in Figure 2.

Figure 2: Sorter/Mailbox Release Lever

2   Remove any paper that is caught in the interface between the copier/printer Right Door and Sorter/ Mailbox, as illustrated in Figure 3.

Figure 3: Removing paper from the interface area

3   If the jam is behind the Left Front Door of the Sorter/Mailbox:

4.   Open the Left Front Door (Figure 4).

5.   Push the green handle (5) down, as illustrated in Figure 4, to release the baffle and rotate the knob (6) to release any jammed paper.

6.   Remove the jammed paper gently.

7.   Lift the handle to secure the baffle.

8.   Close the Left Front Door.

Figure 4: Behind the Left Front Door

4   If the jam is behind the Right Front Door of the Sorter/Mailbox:

1.   Open the Right Front Door.

2.   Push the green handle down to release the baffle and remove any jammed paper (Figure 5).

3.   Lift the handle to secure the baffle.

Figure 5: Behind the Right Front Door

4.   Push the upper handle to the left to open the transport area (Figure 6). Remove any jammed paper gently.

5.   Push the handle to the right and secure in place.

6.   Close the Right Front Door.

5   Remove the jammed paper and push the Sorter/Mailbox back into place.

6   Continue your copy job if a message on the screen directs you to press **Start** to continue.

If the Paper jam message reappears, repeat the preceding steps to clear a remaining paper jam.
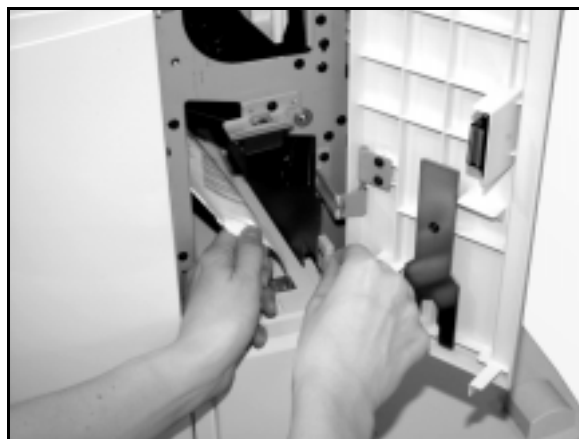
Figure 6: Behind the Right Front Door (lower portion)

12. Problem Solving

Overview

The DocuColor 12 Copier/Printer is designed to help you find and solve problems as they happen. The copier/printer can detect problems and display the corrective action on the screen, as illustrated in Figure 1. If the instructions for solving a particular problem are not displayed on the screen, refer to the tables on the following pages to help you resolve the problem.

Figure 1: A typical fault screen

This section describes the copier/printer faults and how to perform the appropriate recovery procedure.

Sometimes, you may not succeed in your efforts to clear a fault. When this happens, you should call the Xerox Customer Support Centre. Before calling for assistance, perform the steps provided on the following pages.

12

1   With the power on and the copier/printer in a fault condition, press the Stop button on the Control Panel.

2   Record the following information so that you can provide it to the Xerox representative at the support centre:

- With the Stop button depressed, record the displayed Fault Codes.

- Record the Machine Serial Number from the label on the inside lower left cover of the copier/printer. The number may also have been recorded on the inside front cover of this manual.

If the problems are copy quality problems, save the defective copies for the Xerox service representative to examine.

For DocuColor 12 applications support, user help, and service support, call the Xerox Customer Support Centre.

Figure 2: Machine Serial Number location

12

Paper Jam Clearance

Paper may jam in several areas inside the copier/printer:

- Behind the Left Door

- Behind the Right Door

- Behind the Front Door

- In the Duplex Path

- In the output area, that is, near the Output Tray (or the Sorter/Mailbox)

- Near the paper exit for Paper Tray 5

When a paper jam occurs, a message displays in the message area of the Touch Screen with the corrective actions to take, as illustrated in Figure 3.

Figure 3: A typical fault screen

Occasionally, simultaneous multiple paper jams occur or multiple sheets of paper jam during an extended copy job. A paper jam message displays until all paper jams in the copier/printer have been cleared. The Touch Screen displays the appropriate message screen for the area of the copier/printer which needs to be checked until all jams are cleared.

12

KEY POINT: Gradually remove the jammed paper so you do not rip it. If the jammed paper rips, be sure to remove all of the pieces.

The action required to clear a paper jam varies with the location of the jam. Clearance procedures for each of these areas are provided in the sections that follow.

Occasionally, you may have to follow more than one clearance procedure to clear the paper path completely. If so, begin at the sides of the copier/printer and then clear the jam from the front.

Read the instructions and carefully follow the steps in the order given. If you do not follow the instructions sequentially, the copier/printer may be subject to more complex paper jams.

When the jam is cleared successfully and all doors are closed, a message telling you to continue or change the job displays on the Touch Screen.

Preventing paper jams

To prevent paper jams:

- Ensure that the paper you use is not damaged. Dispose of any damaged paper.

- Ensure that you position the paper guides lightly against the paper.

If jams persist:

- Invert the paper stack in the appropriate paper tray. Excessive curl of the paper sometimes causes paper jams.

- Load freshly opened paper into the appropriate paper tray. If the paper jams cease, dispose of the paper that caused the jams.

12

Paper jam behind the Left Door

NOTE: Paper that is partially out of the copier/printer may become more severely jammed if it is not removed before you open the Paper Path Module. Ensure that all paper is cleared from this area, especially paper that is positioned between the paper trays and the Paper Path Module Registration area.

¹₂ 3. . .

1   Note the area of the jam behind the Left Door displayed on the Touch Screen.

2   Perform one of the following:

- If a paper jam occurs from Paper Trays 1, 2, 3, or 4, open the side panel in the Left Door and carefully remove the jammed paper, as illustrated in Figure 4.

Figure 4: Clearing a jam from the left side

- If a paper jam occurs near Paper Tray 5, lift the release lever on Paper Tray 5 and open the panel, as illustrated in Figure 5.

3   Close all open panels.

Figure 5: Opening the Paper Tray 5 Panel

Paper jam behind the Right Door

1₂ 3. . .

1   Note the area of the jam behind the Right Door displayed on the Touch Screen.

2   If there is a Sorter/Mailbox, push down on the release lever, as illustrated in Figure 6, and push the Sorter/Mailbox away from the copier/printer.

Figure 6: The Sorter/Mailbox release lever

3   Open the Right Door, as illustrated in Figure 7.

Figure 7: Opening the Right Door

4   Remove all paper that is visible in the area.

5   Close the Right Door.

If there is a Sorter/Mailbox, push the Sorter/Mailbox back into place.

Paper jam behind the Front Door

1₂ 3. . .

1   When the Touch Screen displays a message indicating a jam behind the Front Door, open the Front Door, as illustrated in Figure 8.

Figure 8: Opening the Front Door

2   Rotate the green handle clockwise, as illustrated in Figure 9, and pull out the Paper Path Module until it is fully open.

3   Check the Touch Screen for a new message indicating the area of the jam.

KEY POINT: Check and clear all jams in the Paper Path Module before closing the module.

Figure 9: Rotating the green handle clockwise

12

4 In Registration area, lift the baffle marked **1** and carefully remove the jammed paper, as illustrated in Figure 10. Press the baffle gently back into place.

NOTE: If transparency jams occur in this area, check Paper Tray 5 to ensure that the transparencies are loaded with the white stripe down.

Figure 10: Area 1 in the Registration area

WARNING: The fuser area is very hot. Be careful when clearing a jam in this area.

WARNING: Fuser oil can irritate your eyes. Wash your hands thoroughly with soap and water and avoid touching your eyes if your fingers are contaminated with fuser oil.

5 In the Fuser area, 2, carefully pull any paper in the entry area to the left to free it, as illustrated in Figure 11.

Figure 11: Fuser Area 2

12

If the paper jam is in the Fuser Exit area, locate the Fuser Exit Area handle at the right of the Paper Path Module, as illustrated in Figure 11. Move the handle to the right and carefully remove the jammed paper. Gently secure the handle back into place.
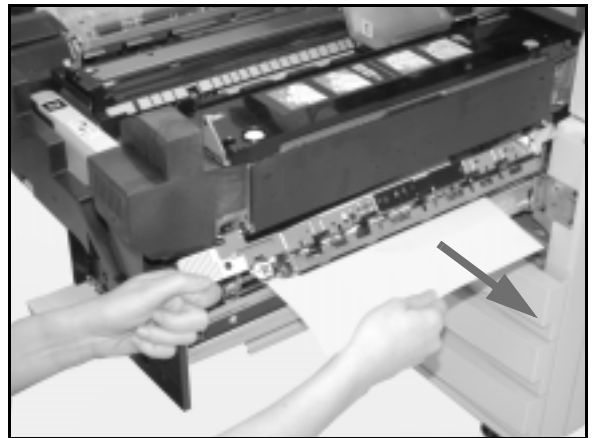
Figure 12: Fuser Exit area

6 In the Duplex Path, areas 3 and 4, press the handles down gently to release the Aligner Baffle (left handle) and Duplex In baffle (right handle), as illustrated in Figure 13.

7 Remove the jammed paper and secure the handles back in place.
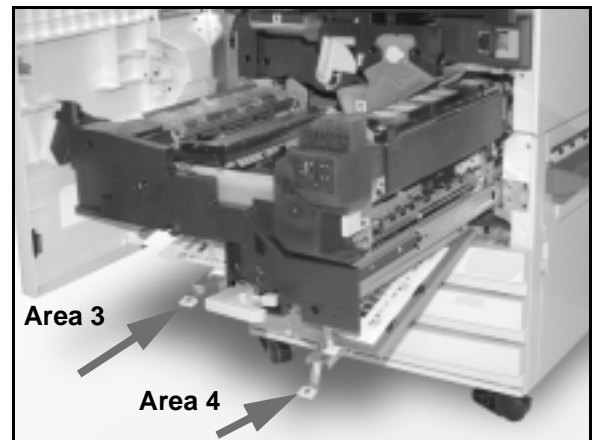
Figure 13: Duplex Path Areas

8 Firmly push in the Paper Path Module until it is in place. Turn the green handle anti-clockwise to lock the module, as illustrated in Figure 14.
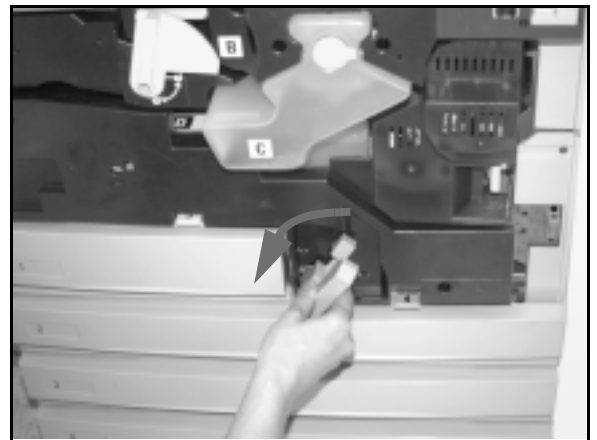
Figure 14: Rotating the green handle anti-clockwise

Paper jam inside a paper tray

Paper that is partially out of the paper tray when the paper tray is opened can cause more complex jams by tearing. The torn pieces may become jammed in areas that you cannot reach.

1 2 3. . .

1 Use the message that displays on the Touch Screen to locate the paper jam.

2 Use the previous procedures to clear any paper that is behind the Left or Right Door of the copier/ printer.

3 Slowly open the appropriate paper tray.

If you hear the sound of tearing or crumpling paper, stop opening the paper tray.

Attempt to grasp and remove the paper that is being damaged without opening the paper tray farther.

If you cannot grasp the paper, carefully open the paper tray farther and attempt to grasp the damaged paper again.

4 Remove all of the damaged paper, as illustrated in Figure 15.

5 Readjust the paper stack in the paper tray to the proper position. Ensure that the paper stack height does not cover the MAX fill line on the paper tray.

6 Adjust the edge guides so they are lightly touching the paper.

7 Close the paper tray slowly to avoid shifting the paper stack.

Figure 15: Clearing a Paper Jam inside a Paper Tray

Paper jam inside Paper Tray 5

1 2 3...

1 Use the message that displays on the Touch Screen to locate the paper jam.

2 If necessary, grasp the centre top handle and raise the top of Paper Tray 5 toward the copier/ printer to access the jam, as illustrated in Figure 16 and Figure 17.

3 Remove all of the visible jammed paper, including any partially fed sheets.

If you cannot grasp all of the jammed paper at the entrance of Paper Tray 5, open the Front Door and follow the procedure, "Paper jam behind the Front Door."

Centre top handle

Figure 16: Grasping the top of Paper Tray 5

After you have cleared all of the paper jams, grasp the centre top handle and lower the top of Paper Tray 5. Readjust the paper stack and the paper guide in Paper Tray 5.

KEY POINT:

- Move the edge guide so it lightly touches the paper stack. Adjust the edge guide each time you load paper into Paper Tray 5.

- If Paper Tray 5 is not fully extended, paper jams or misregistration may occur.

Figure 17: Lifting the top of Paper Tray 5

12

Resolving hardware problems

WARNING: When clearing the paper path in the Fuser area (located in the Paper Path Module), remember that the surfaces are hot. To avoid injury, proceed with caution when clearing the path.

Problem	Suggested Solution
Dry Ink (Toner) Cartridge: • Operator cannot reinsert a partially full dry ink (toner) cartridge after it has been removed. • Operator mistakenly removed the wrong dry ink (toner) cartridge and wishes to reinsert it.	Reinstall the dry ink (toner) cartridge using the following procedure: NOTE: The following procedure may result in dry ink (toner) spillage on the floor. To protect the floor, put a disposable covering or drop cloth beneath and in front of the copier/printer. • Reinstall the used and partially full dry ink (toner) cartridge by pushing in the cartridge until it is fully seated against the rear stop. Rotate the cartridge in the direction indicated on the label located on the copier/printer. For more information, refer to the *System Administration Guide,* Replacing the Dry Ink (Toner) Cartridge. • Inform the Xerox service representative at the next service call about the above action since he or she may need to clean up the dry ink (toner) on internal copier/printer components.
Electrical power to the copier/printer appears to be off even though the Main Power Switch is on, and the power outlet to the copier/printer is operational.	The copier/printer is equipped with an additional safety feature to provide protection in the event of an incorrectly wired electrical supply to the copier/printer. This device, a Ground Fault Protector (GFP), cuts off all power to the copier/printer if an electrical fault is detected. If there appears to be no power to the copier/printer, determine if the switch on the GFP has been tripped. The GFP is located on the lower rear panel of the copier/printer. If the switch is in the off position (down), the GFP has been activated. Flip the switch up and determine if electrical power has been restored. If power is restored, continue to operate the copier/printer normally. If the GFP reactivates, call your representative. Refer to section 1, "Getting to know your DocuColor 12," for additional information.

12

Resolving programming problems

Problem	Suggested Solution
The Control Panel Touch Screen does not respond to a touch command.	Press Clear All on the Control panel. Touch a selectable button on the Touch Screen with one finger. A slight pressure is required to cause the copier/printer to react. If the problem persists, open the Front Door of the copier/printer. Close the Front Door and make a selection on the Touch Screen. If the Touch Screen does not respond to any touch commands, switch off the power. Wait 15 seconds. Then switch on the power. Reprogram the copier/printer for the copy features that are desired.
You cannot program a job while a screen is open.	Jobs cannot be programmed or copies made while some screens, such as administration screens, jam clearance screens, or consumable status information screens, are open. Follow the directions on the information screen. Then program the desired job.
Copier/printer features are not selectable.	Certain features cannot be selected because of the previous selections. Generally, features or buttons you can select appear selectable to indicate you can use them with the previous selections. Refer to chapter 2, "Getting to know your DocuColor 12," for more information about buttons.
You cannot complete the programming. The copier/printer times out too quickly and resets to the default settings.	Attempt to complete all the programming more quickly. The time-out values have been exceeded during the programming. The values can be changed by the System Administrator. Refer to the *System Administration Guide* for information about adjusting the Machine Timeouts.

12

Resolving Processor problems

Problem	Suggested Solution
Transparencies	Use transparencies with a painted or removable white stripe. Load them with stripe down, as the lead edge of the sheet in Paper Tray 5. Load the transparencies by following the instructions in the section, "Paper and Paper Trays."
Transparencies are too oily	• Make 5 blank sheet copies with the Full Colour option on paper stock to purge excess oil from system. Reload the transparencies in Paper Tray 5 and continue the copying job. • Use the Transparency Separator option. Refer to the *Colour Materials Usage Guide* and *Recommended Materials for the DocuColor 12* for more information about transparencies.
11 x 17 inch (A3) transparencies jam when exiting the copier/printer to the Output Tray	Remove each copy of 11 x 17 inch (A3) transparencies from the Output Tray before subsequent copies exit the copier/printer.
Transparencies stick together after copying	Select the Transparency Separator feature to eliminate the problem.
Multiple sheets feed from the paper trays	Do not fill the paper trays above the MAX fill line indicator. Trays 1, 2, 3, and 4 hold approximately 550 sheets of 24-lb (90 gsm) paper. Remove the paper from the tray and fan the sheets to separate the joined sheets. Predrilled sheets may stick together at the holes. Remove the paper from the tray and fan the sheets to separate the joined sheets.
Multiple sheets feed from Paper Tray 5	Paper and transparencies may stick together if environmental conditions are too dry and cause excessive static. Increase the humidity level in the copier/printer room to minimize static. Do not overload Paper Tray 5. Gently fan transparencies to separate the sheets before you load them into Paper Tray 5. If multiple sheet feeding continues, feed the transparencies one at a time from Paper Tray 5.
Sheets will not feed from the Paper Tray 5	Ensure that the height of the stack does not exceed the MAX fill line. Check that the paper guide is not too tight. The paper guide should be adjusted to be just snug against the paper stack.

12

Problem	Suggested Solution
Paper jams when exiting the Paper Trays	Ensure that the edge guides of the paper tray fit snugly against the paper stack. Do not fill the paper trays above the MAX fill line indicator. Tray 1 holds approximately 500 sheets of 20 lb. (80 gsm) paper. Trays 2, 3, and 4 hold approximately 550 sheets of 20 lb. (80 gsm) paper. Close the tray slowly to avoid shifting the paper stack.
Output jams when exiting the copier/printer to the Output Catch Tray	Ensure the paper matches the type defined for the Paper Tray. When no Sorter/Mailbox is present, the Output Catch Tray can hold up to 250 sheets of 20 lb (80 gsm) paper. Empty the catch tray when output approaches this limit to ensure continuous production. Ensure the first sheet is not blocking the paper exit, particularly for 11 x 17 inch (A3) output.
Output jams when exiting the copier/printer to the Offset Catch Tray	Ensure the paper matches the type defined for the Paper Tray. The Sorter/Mailbox Offset Catch Tray has a capacity of 500 sheets of 20 lb (80 gsm) paper. Remove the output when it approached this limit to ensure continuous production. Ensure the first sheet is not blocking the paper exit, particularly for 11 x 17 inch (A3) output.
11 x 17 inch (A3) output blocks exit	Ensure the first sheet of 11 x 17 inch (A3) output exits completely.
Copies originating from Paper Tray 5 are skewed. Jams may be occurring.	The paper guide on Paper Tray 5 may not be set correctly or may be too tight against the paper stack. Ensure that the paper guide snugly touches the paper stack.
Copier/printer does not make copies when Auto Paper is selected.	For the Auto Paper selection to function correctly, the size of the original document must be the same size as the paper supply that is loaded in at least one of the trays. If not, select the paper tray size that best meets your needs. Or, if you wish to continue to use the Auto Paper feature, load one of the trays with the same size paper as the original document.
Loss of information or image deletions on copies made on paper that has been folded or creased.	If you must use folded or creased paper, use a lightweight copy paper, 20 lb (80 gsm). Also, avoid imaging the copy paper in the area of the fold or the crease. Handle the copy paper carefully. Slight folds or creases may result in output deletions.
Fresh copies used as original documents cause jams in the Duplex Automatic Document Feeder.	This problem is caused by the oil used in the fusing process. The problem can be reduced or eliminated by allowing output to sit for awhile so oil can evaporate before using them as original documents.

12

Problem	Suggested Solution
Excessive paper curl	Paper curl may be a result of: • The mass of dry ink (toner) coverage on the copy - the greater the toner mass, the greater the paper curl. • The paper weight. • The humidity conditions at the copier/printer. You can sometimes minimize curl problems by flipping the paper over in the tray and making the copies again. If excessive curl is still present, use a heavier paper. Ensure the paper matches the type defined for the Paper Tray. Attempt to minimize the amount of dry ink (toner) on the copy paper by selecting the Photo feature as the Document Type and/or the lighter and/or less contrast image quality options. Select the Full Colour option instead of 3 Pass Colour to minimize the amount of dry ink (toner) on the copy paper. When no Sorter/Mailbox is present, the Output Catch Tray can hold up to 250 sheets of 20 lb (80 gsm) paper. Empty the catch tray when output approaches this limit to ensure continuous production. The Sorter/Mailbox Offset Catch Tray has a capacity of 500 sheets of 20 lb (80 gsm) paper. Remove the output when it approached this limit to ensure continuous production. Allow output to sit for awhile so any excess oil can evaporate before using them as original documents. Copying high density background areas or documents with alternating high and low density areas results in more curl. Attempt to reduce the amount of curl by adjusting the copy quality controls to reduce the amount of dry ink (toner) on the copies. Place the copier/printer and paper in a room with air conditioning and low humidity to minimize the moisture in the environment. Attempt to copy on thicker paper or on paper stock that is less sensitive to moisture.

12

Resolving output quality problems using the Basic Copying, Added Features, or Image Quality Tabs

Problem	Suggested Solution
Moiré patterns on the copies	This problem sometimes occurs when original documents have halftone images. Perform the following suggested solutions in the following order: • Select Halftone as the Original Type. • Rotate the original on the Document Glass by 180 degrees. • Reduce or enlarge the output by 5%. • Use the Sharpness feature to select Softer options until the moiré patterns are not visible. • Ensure that the selected Original Type is Graphics & Map.
The entire document is not being copied	Enter the Original Size. Reduce the image. Ensure that the document placement matches the Original Orientation setting.
Scattered, very light show-through images occur when copying a document that is on thin paper.	Select the Background Suppression option in the Preset Colour Balance feature in the Image Quality tab. To eliminate the unwanted show-through images, place the thin (translucent) document on the Document Glass. Cover the document with a black (or very dark) sheet of paper that is the same size as the document you are copying. Place the 2-sided original document on the Document Glass with a blank sheet of paper on top of it. Adjust the Lighten/Darken control to Lighten. Select the Photo & Text or Text document type and the Auto Contrast Lighten/Darken feature or Background Suppression in the Preset Colour Balance feature of the Image Quality tab.

12

Problem	Suggested Solution
A black border appears at the edge of the copy when a reduction option is selected.	Select the Auto Shift option in the Margin Shift feature or the Edge Erase feature of the Added Features tab.
A black border appears on the copy of a small document.	Select the Auto Shift option in the Margin Shift feature or the Edge Erase feature of the Added Features tab. Or: Program the Original Size in the Added Features tab for the dark bordered document that you wish to copy.
Deletions on the copy edges.	Edge deletion on all sides of the copy is normal, and is greatest on the lead edge of the copy. Set the Edge Erase feature, Variable Erase option, to 4 mm to minimize the deletion. Select the size for the original document in the Added Features tab and an appropriate setting from the Reduce/Enlarge option from the Basic Copying tab. Refer to the section, "Added Features," for edge erase specifications. Moisture may be present in the paper. Load a fresh supply of paper into the trays. Some deletions may be caused by small pieces of paper remaining in the copier/printer components after a paper jam has been cleared. When clearing a paper jam, be sure to look for and remove any paper fragments.
Copies made from photographs show colour or background on output edges	Most emulsions used to develop photographs have colour. Sometimes this colour is shows on the border of the photograph. To prevent the colour from being copied as part of the image or as background, use the Edge Erase feature on the Added Features tab to deliberately erase the unwanted colour or background from the edge.
The copies made using the 100% Reduce/Enlarge feature do not include the entire image along the edge of the document.	Select the Original Size feature and program the exact size of the dark bordered document that you wish to copy.
Output is too light.	Use the Lighten/Darken feature to select a darker level. Select the Text or Graphics & Maps option in the Original Type feature.
Output is too dark.	Use the Lighten/Darken feature to select a lighter level. Select the Photo option in the Original Type feature.
Output has too much contrast.	Select less colour (toward Pastel) Saturation in the Image Quality tab.

12

Problem	Suggested Solution
Output has low contrast.	Select more colour (toward Vivid) Saturation in the Image Quality tab. Select the Graphics & Maps option in the Original Type feature.
Background on the copies.	Examine the input document for the source of the problem. Ensure that the document is held flat on the Document Glass and that the document cover is closed. From the Image Quality tab, adjust the Lighten/Darken control to Lighten. When making Black copies, select Black as the Output Colour. Reduce the Colour Balance - Low Density values so the background does not appear on the copies. When copying colours, set the Output Colour to Auto Colour and set the Preset Colour Balance Background Suppression option so that the background does not appear on the copies. Determine the type of document you are copying. From the Original Type feature, indicate whether the original is Photo & Text, Text, Photo, or Graphics & Maps for best copy quality. NOTE: You can select the Photo option for documents other than photographs if the document contains areas of different density, from light to dark, and all levels of density need to be copied.
The copies are blurred when copying thick documents, three-dimensional objects, or bound documents.	Increase the Sharpness. Select the Text or Graphics & Maps option in the Original Type feature. Ensure that the document is held flat on the Document Glass and that the document cover is closed as much as possible. DO NOT force the cover closed.

12

Problem	Suggested Solution
The image quality gradually degrades on successive copies, or copies made with settings used previously are significantly worse than copies you are making now.	The internal process control function of the copier/printer has degraded. Place a white sheet of paper on the Document Glass and run 35 blank copies using Full Colour in the Output Colour feature. Make a copy of the document again. The copy quality output should be improved. If not, ensure that the image quality selections, which may have been misadjusted previously to remedy the initial problem, are set to the appropriate levels. Adjust the Auto Screening Adjustment feature in the Tools Mode. Contact your System Administrator or refer to the *System Administration Guide*.
Copies have dark bands on the lead edge and a corner when 100% Reduce/Enlarge is selected.	The bands may be caused by curled edges on the document or by misregistration of the document on the Document Glass. Ensure that the document is registered correctly. Ensure that the Edge Erase is at No Erase (2 mm). Increasing the amount of Edge Erase should remove more of the dark bands. Increasing the amount of Edge Erase, however, may eventually cause image loss.
Copies have dark bands on the lead edge and a corner when 100% Reduce/Enlarge is selected and the DADF is used.	The bands may be caused by curled edges on the document or by misregistration of the document by the Duplex Automatic Document Feeder (DADF). Ensure that the Edge Erase is at No Erase (2 mm). Increasing the amount of Edge Erase should remove more of the dark bands. Increasing the amount of Edge Erase, however, may eventually cause image loss.
Corner Shift appears in the wrong area on the copy.	If the document is positioned on the Document Glass in the short edge feed direction, and the paper used for copying is in the long edge feed direction, the copy will appear to be positioning the Corner Shift selection in the wrong corner. Corner shift selections are referenced from the Document Glass location. Refer to the section, "Added Features," Margin Shift feature, for illustrated examples. NOTE: Corner Shift is also intended only for documents that are smaller than the copy paper selected.

12

Problem	Suggested Solution
Copies have black borders. Large black borders appear on the copies with documents smaller than the copy paper size.	No shift is selected. Select the Auto Shift feature to eliminate the black borders. Also, select the Auto Shift feature to eliminate the black borders for copier/printers equipped with the Duplex Automatic Document Feeder (DADF).
Copies made from a newspaper, a map, or a photograph have background when Original Type is defined as Graphics & Maps or Photo.	The DocuColor 12 copier/printer detects low densities of colour and reproduces them. This is especially true with the Graphics & Maps and Photo options. The background can be reduced or eliminated by adjusting the Lighten/Darken feature toward lighten. Newspaper show-through can be reduced or eliminated by backing the document with a black sheet of paper. Use the Background Suppression option in the Preset Colour Balance feature in the Image Quality tab.
The image density of the copy seems lighter toward the trail edge.	This defect is noticeable only when the input document has large solid areas. To reduce or eliminate this defect, select the Photo option in the Original Type feature of the Image Quality tab.
It is difficult to perform secondary operations on the copies, such as writing on them or using adhesives.	This problem is caused by the oil used in the fusing process. The problem can be reduced or eliminated by setting the copies aside for one or two hours before performing a secondary operation on them. Rubbing the copy surface with a soft, clean cloth or eraser may also help.

12

Original Type selection and output

When you use the Original Type options of Photo & Text or Text, the copier/printer attempts to discriminate between text and photo or picture areas within the original. It then applies the appropriate image processing to each area. Text is reproduced at 600 lines per inch while photos are reproduced at 200 lines or dots per inch. Occasionally, a defect may occur where an area is classified incorrectly and text is treated as photo or vice versa.

To avoid this type of image quality defect for a given original, select the Original Type options of either Photo or Graphics and Maps. In these modes, uniform image processing is applied to the entire page.

NOTE: The resulting output may have a different appearance in these modes. Some colour adjustments may be required.

If your original documents consist mostly of text or mostly of photos, the System Administrator can adjust the System Image Quality Image Recognition settings. New default levels can be set for Text & Photo Recognition and/or Text & Photo Balance functions. The System Administrator can select Text or Photo for Photo & Text and Text modes.

Refer to the "Tools Mode, System Image Quality" section in the *System Administrator Guide* for more information.

13. Technical Information

Overview

The information in this section is provided for your convenience and can be supplemented with information provided by your Xerox sales or service representative.

13

Specifications

Electrical Power Requirements (115 VAC - 60 Hz)

Specifications	Single phase	Two wire plus earth ground
	Current service	20 Amps (Dedicated line recommended but not required)
	Line-to-Neutral	115 Volts ($\pm$10%)
	Frequency	60 Hz Contact your Xerox Service Representative for more information.
Max. Power Consumption		2.112 kVA
Current Loads @ 115V	Warm-up	12.5 Amps (1.60 kVA) (approx.)
	Stand-by Average	7 Amps (800 VA) (approx.)
	Average Run Mode (4-Colour)	10 Amps (1.2 kVA) (approx.)

13

Electrical Power Requirements (220-240 VAC - 50 Hz)

Specifications	Single phase	Two wire plus earth ground
	Current service	15 Amps (Dedicated line recommended but not required)
	Line-to-Neutral	220 - 240 Volts (±10%)
	Frequency	50 Hz Contact your Xerox Service Representative for more information.
Max. Power Consumption @ 220 Volts		2.2 kVA
Current Loads @ 240V	Warm-up	8.0 Amps (1.6 kVA) (approx.)
	Stand-by Average	3.8 Amps (800 VA) (approx.)
	Average Run Mode (4-Colour)	5.7 Amps (1.2 kVA) (approx.)

13

Environmental Requirements

Standby Temperatures	Minimum	14°F (-10°C) at 5% relative humidity
	Maximum	104°F (40°C) at 95% relative humidity
Operating Temperatures	Minimum	50°F (10°C) at 15% relative humidity
	Maximum	95°F (35°C) at 85% relative humidity
Maximum Altitude	10,000 feet (3050 metres) in normal configuration	
Heat Output	Operating	4080 BTUs per hour, average
	Standby	2720 BTUs per hour, average

Health and Safety Information

Noise Levels	Standby	58.4 dB(A)
	Impulse/Run Mode	71.0 dB(A)
Ozone Emissions	Not to exceed 0.01 PPM in a 50 cubic metre room (continuous run, according to UZ 62) Ozone filter change at 80 K copies	
Dust	Dust concentration during continuous run = 0.075 mg/cubic metre	
Photoreceptor Type	Organic	
Product Safety	This copier/printer complies with the corresponding regulation: • US/Canada: UL 1950, Third Edition • Europe: Low Voltage Directive (72/23/EEC) IEC 950 A1: 1993/A2:IEC825 The copier/printer carries the CE symbol for the 220-240 V, 50 Hz version.	
RFI Emissions	This copier/printer complies with the following: • US/Canada: FCC Class B, ICES-003 Class B • Europe: EMC Directive (89/336/EEC) -EN55022-A Class B, EN61000-3-2.	

13

Capabilities

Warm-up Time	7.4 — 9.5 Minutes at 72°F (22°C), 53% Relative Humidity	
First Copy Out Time*	Black	5.8 seconds
	Colour	14.1 seconds
Copy Selector	1-999 copies	
Documents	Effective maximum print/copy area: 11.7 inches x 17.2 inches (297 mm x 438 mm)	
Throughput Size	8 x 10 inches to 12.6 x 17.7 inches (203 mm x 254 mm to SRA3)	
Throughput Paper Weight	Tray 1	16 lb. — 28 lb. Bond 64 — 105 gsm
	Tray 2	16 lb. — 32 lb. Bond 64 — 128 gsm
	Tray 3	16 lb. — 32 lb. Bond 64 — 128 gsm
	Tray 4	16 lb. — 32 lb. Bond 64 — 128 gsm
	Tray 5	16 lb. Bond — 140 lb. Index 64 — 250 gsm
Paper Capacity	Tray 1	500 sheets using 20lb (80gsm)
	Tray 2	550 sheets using 20lb (80gsm)
	Tray 3	550 sheets using 20lb (80gsm)
	Tray 4	550 sheets using 20lb (80gsm)
	Tray 5	100 sheets using 20lb (80gsm)
Reduction/Enlargement	Applied range: 25%—400% Choice of fixed or variable values (in 1% increments)	

* From Document Glass to the Output Catch Tray,
the black and white output rate is 50 copies per
minute.With a DADF, the black and white output
rate is 40 copies per minute.

13

Physical Dimensions

NOTE: The dimensions listed include the Processor and the standard Catch Tray.

Floor space requirements can vary depending on copier/printer options and placement location. Contact your Xerox sales or service representative to evaluate your exact requirements.

Copier with DADF		
Width	24.5 in.	622.3 mm.
Height	43.8 in.	1112.5 mm.
Depth	31.5 in.	800 mm.
Copier with Document Glass Cover		
Width	24.5 in.	622.3 mm.
Height	40 in.	1016 mm.
Depth	31.5 in.	800 mm.
Sorter/Mailbox		
Width	28 in.	711.2 mm.
Height	40.5 in.	1029 mm.
Depth	24.25 in.	616 mm.
High Capacity Feeder		
Width	18.12 in.	460.2 mm.
Height	17 in.	432 mm.
Depth	23 in.	584 mm.

13

System Modes of Operation

Running Mode to Ready Mode	When Running Mode is complete.
Ready Mode to Lower Power Mode	As set by System Administrator: 1-240 minutes Factory Default: 15 minutes
Low Power Mode to Sleep Mode	As set by System Administrator: 15-240 minutes Factory Default: 60 minutes

Copy rates for Paper Trays 1, 2, 3, and 4: Normal Paper

Copies per minute for normal paper (64—105
gsm) fed from trays 1, 2, 3, and 4 are listed below.
These rates assume black and white copies are
being made from the Document Glass.

	Black / White Mode		Colour Mode	
	Simplex	**Duplex**	**Simplex**	**Duplex**
B5 LEF	50	25	12	8
B5 SEF	29	14	6	3
A4 LEF	50	25	12	6
A4 SEF	29	14	6	3
Letter LEF	50	25	12	6
Letter SEF	29	14	6	3
Legal SEF	29	14	6	3
B4 SEF	29	14	6	3
A3 SEF	25	12	6	3

13

Copy rates for Paper Trays 2, 3, and 4: Limited Heavyweight Paper

Copies per minute for limited heavyweight paper
(106—128 gsm) fed from trays 2, 3, and 4 are
listed below.

	Black / White Mode	Colour Mode
	Simplex	Simplex
B5 LEF	6	3.5
B5 SEF	6	3.5
A4 LEF	6	3.5
A4 SEF	6	3.5
Letter LEF	6	3.5
Letter SEF	6	3.5
Legal SEF	6	3.5
B4 SEF	6	3.5
A3 SEF	6	3.5

Copy rates for Tray 5

Copy rates (copies per minute) for Tray 5 are
listed below.

	Size	Black / White Mode	Colour Mode
		Simplex	Simplex
Normal Paper 64—105 gsm	A4 / Letter LEF	25	6
	A3	20	6
OHP (Transparency)	A4 / Letter LEF	25	2.4
	A3	20	2.4
Heavyweight Paper 106—163 gsm	A4 / Letter LEF	6	3.5
	A3	6	3.5
Extra Heavyweight Paper 164—250 gsm	A4 / Letter LEF	3	2.4
	A3	3	2.4
Postcard	Postcard SEF	3	2.4

13

Duplex Automatic Document Feeder (DADF Specifications)

Document feeding method	Face-up, 1-to-N (top feed) method. Capable of automatic document feeding.
Applicable document sizes	Minimum: 8.5 x 11 inches (216 x 279 mm) short edge first / A4 short edge first Maximum:11 x 17 inches (279 x 432 mm) / A3
Maximum number of documents	• 50 for thin (38—49 gsm) or standard (50—100 gsm) documents • 40 for heavier documents (101—128 gsm)
Speed	40 copies per minute
Power source	Supplied from the Processor
Noise while running	68 dB(A)
Dimensions	Width:
	Height: 3.8 inches (96.5 mm)
	Depth:
Weight	28.7 lbs. (14 kg)
Machine space	Within the space required for the copier/printer

13

Sorter/Mailbox Specifications

Paper Size	8.5 x 11 inches to 11 x 17 inches (216 x 279 mm to 279 x 432 mm) / A4 to A3
Capacity of the Output/Offset Catch Tray	500 sheets of 20 lb. (80 gsm) paper
Number of Sorter/Mailbox Bins	10
Capacity of each bin	100 sheets of 20 lb. (80 gsm) paper
Weight	75 lbs (34 kg)
Dimensions	Width: 28 (711.2 mm)
	Height: 40.5 inches (1029 mm)
	Depth: 24.3 inches (616 mm)
Noise while running	56 dB(A)

13

Metric Conversion Chart

* Note that most numbers are rounded off.

Inches	Millimetres (mm)	Inches	Millimetres (mm)	Inches/ International Sizes	Millimetres (mm)	Celsius (°C)	Fahrenheit (°F)
0.01	0.254	6	153	13.5	343	10	50
0.04	1	7.2	183	14.0	356	32	90
0.05	1	7.3	185	8.0	203	100	212
0.1	3	7.5	190	15.75	400	200	392
0.15	4	7.8	198	16.9	429	204	400
0.2	5	8.0	203	17.0	432	218	425
0.25	6	8.3	211	24.0	610		
0.28	7	8.4	213				
0.3	7	8.5	216				
0.5	13	8.7	221	5 x 8	127 x 203		
0.6	15	9.0	229	8 x 10	203 x 254		
0.7	18	10.0	254	8 x 11	203 x 279		
0.8	20	10.5	267	A4	210 x 297		
1	25.4	10.8	274	8.5 x 11	216 x 279	**Kilograms**	**Pounds**
1.4	36	11.0	279	8.5 x 13	216 x 330	1.0	2.205
1.5	38	11.1	282	8.5 x 14	216 x 356	0.454	1.0
1.7	43	11.15	283	8.7 x 14	221 x 356		
1.9	48	11.5	292	9 x 11	229 x 279		
2	51	11.8	300	9 x 14	229 x 356		
2.3	58	11.85	301	11 x 17	279 x 432		
2.5	64	12.5	318	A3	297 x 420		
3	76	13.0	330	12 x 17	305 x 432		
4	104	13.4	340	12 x 18	305 x 457		
5	127	13.45	342	SRA3 12.6 x 17.7	320 x 450		

13

13

Index

14

14

14

14

U

Uncollated output (Sorter/Mailbox): 11-2

V

Variable Colour Balance: 6-24
Variable Edge Erase: 5-27
Variable Image Repeat: 7-8
Variable Shift: 5-22
Variable%: 4-14
Variable% (Reduce/Enlarge): 4-11

W

Warm (colour balance): 6-13
White border edges: 2-20

14