



Printpix

DIGITAL COLOR PRINTER

NC-400D

OWNER'S MANUAL

This manual will show you how to use your FUJIFILM Printpix
DIGITAL COLOR PRINTER NC-400D correctly.
Please follow the instructions carefully.

First Edition

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

For customers in the U.S.A.

Federal Communications Commission (FCC) Radio Frequency Interference Statement

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 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 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.

You are cautioned that any changes or modifications not expressly approved in this manual could void the user's authority to operate the equipment.

IMPORTANT

This equipment was tested with shielded interface cables. The use of these cables is required to reduce the possibility of causing interference to radio and television reception.

For customer in Canada

CAUTION

This Class B digital apparatus complies with Canadian ICES-0003.

Varning: SVENSKA

APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG NÄR DEN ANSLUTS TILL KTT NÄTVERK.

Merk: NORSK

APPARATET MÅ KUN TILKOPLES JORDET STIKKONTAKT.

EC DECLARATION OF CONFORMITY

We

Name: Fuji Photo Film (Europe) G.m.b.H
 Address: Heesenstrasse 31
 40549 Dusseldorf, Germany

Declare that the product

Product Name: Fujifilm Printpix Digital Color Printer NC-400
 Manufacturer's Name: Fuji Photo Film Co., Ltd.
 Manufacturer's Address: 26-30, Nishiazabu 2-chome, Minato-ku,
 Tokyo 106-8620, Japan

is in conformity with the following Standards

Safety:	EN60950	
EMC:	EN55022:	1998-Class B
	EN55024:	1998
	EN61000-3-2:	1995
	EN61000-3-3:	1995

Following the provisions of the EMC Directive (89/336/EEC, 92/31/EEC and 93/68/EEC) and Low Voltage Directive (72/23/EEC).

CEロゴ

Dusseldorf, Germany

July 1, 2002

Place

Date

FDUS長サイン

Signature/Managing Director

OWNER'S RECORD

The model and serial numbers are located on
 The rear panel of the Printer. Record the serial
 number in the space provided on the right.
 Refer to this number whenever you call upon
 your FUJIFILM dealer regarding this product.

Model No. NC-400
 Serial No. _____

Please read the SAFETY NOTES (see page x.xx) and make sure you
 understand them before using printer.

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1. PREFACE

PREFACE

Thank you for purchasing this product. This Owner's Manual describes how to use the FUJIFILM Digital Color Printer NC-400D. Read this manual carefully to ensure that you use your printer correctly.

You must read this manual before using your NC-400D printer to ensure that you obtain the best possible performance from the printer.

HOW TO READ THIS MANUAL

The configuration of this manual and the conventions used are explained below.

● Configuration of This Manual

1. Preface (P.6)

This chapter explains the manual configuration and conventions, describes the printer features and provides an example of the normal use of the printer. Users should read this section before using the printer. "Names and Functions of Components" lists the names and functions of the printer keys used for controlling the printer.

2. Setting Up (P.17)

This chapter describes the how to set up the printer when it is first installed, how to connect other devices to the printer, and how to load the paper (paper roll).

3. Maintenance and Troubleshooting (P.30)

This chapter includes maintenance tasks, troubleshooting measures and the printer specifications.

● Conventions

The icons shown below are used in this manual to indicate information relating to printer operation.



Denotes important information on using the printer correctly. To avoid faults or malfunctions, these notes should always be read in conjunction with the "SAFETY NOTES" (P.44).



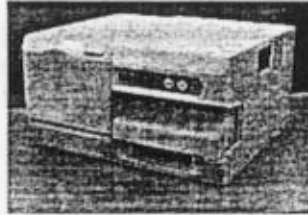
Denotes a tip for making more effective use of the printer.

PARTS CHECKLIST

The box your NC-400D was shipped in should contain the items listed below. As you unpack the box, please make sure you have all of them.

 You can re-use the box your printer was shipped in whenever you need to move the printer or return it for repairs. We suggest you keep the box handy to protect your printer if you need to do either of these.

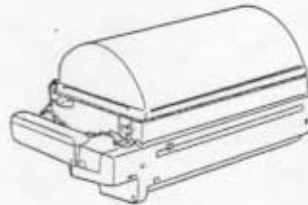
■ Digital Color Printer (main unit) (1) (NC-400D)



■ Paper cartridge (orange) (1)

The cartridge is installed in the printer.

 This is the paper cartridge specifically for the NC-400D and is not compatible with the NC-300D printer (The paper cartridge for the NC-300D printer is gray).



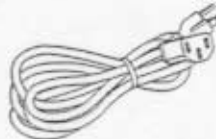
■ Paper eject unit (1)

This unit is installed in the printer.



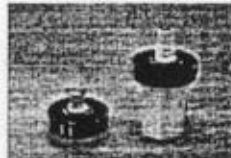
■ Power cord (1)

(approx. 1.8 meters / 5.9 ft.)



■ Paper flanges (1 unit)

 These are paper flanges specifically for the NC-400D and are not compatible with the NC-300D printer.



■ Prints tray (1)



■ Jam driver (+: plus, No.2) (1)

The jam driver is installed in the printer.

 This is the jam driver specifically for the NC-400D and is not compatible with the NC-300D printer which uses a minus (-) jam driver.



■ Owner's manual (1)

(This document)

FEATURES

The Digital Color Printer NC-400D is a color printer that uses a light-fixing thermal color print system (Printpix system) to print full color images downloaded from a PC. The NC-400D prints 16.7 million colors in 256 gradations at high resolution (11.8 dot/mm or 300 dpi) on Printpix paper.

■ Uses paper roll (standard paper)

- Prints 2 × 6 inch (6 × 15 cm) or 6 × 8 inch (15 × 20 cm) borderless prints

■ Printer setting controls

- Control panel
- DIP switches
- Settings using SCSI commands

■ Display

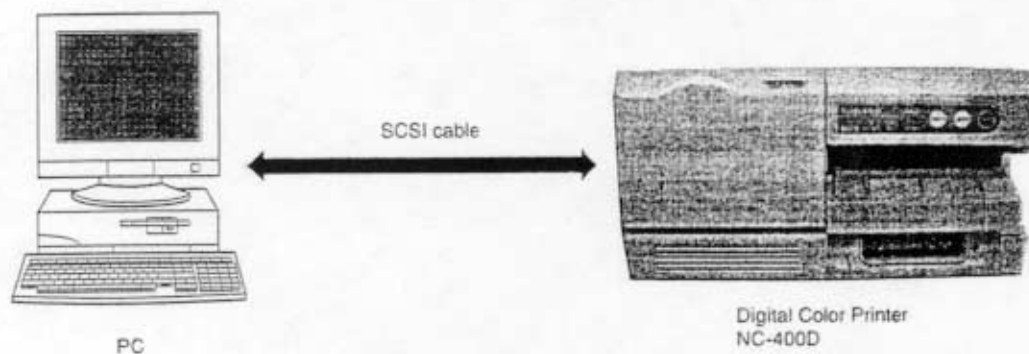
- Front panel LED lamps

■ SCSI connection

- Direct printing from a PC

EXAMPLE OF NORMAL USAGE

The figure below shows how the NC-400D printer is normally used.



NOTES ON USING THE NC-400D

Installation Location

To ensure that the printer is used correctly and safely, install it in the following type of location:

- A location not subject to strong lights such as direct sunlight or studio lighting.
If necessary, install curtains or blinds to block the light. Exposing the Printpix paper to strong light before or during printing will cause color reproduction defects.
- On a level surface that is not subject to strong vibrations and can bear the weight of the printer.
- A location that does not obstruct the ventilation grilles.
- A well-ventilated, dust-free location.
Dusty environments will increase the likelihood of soiling and scratching of the printing surface of the paper.
- A location not subject to rapid temperature variations.
The rapid warming of a cold room will cause water droplets to form inside the printer (condensation) and lead to paper jams or inferior print quality.
- A location well away from water taps, kettles, humidifiers, air conditioners, heating appliances, cooking stoves, etc. (high temperatures and humidity or low temperatures and humidity).
- Recommended ambient conditions
To obtain the optimum printer performance (print quality), the printer should be used in the following conditions:
 Temperature: +18°C to +28°C (+65°F to +82°F)
 Humidity: 40% to 60% RH (no condensation)
 In cold conditions, the time required before printing can begin will increase and this delay may cause an error.
- Avoid locations close to equipment that generates a strong magnetic field (motors, transformers, televisions, speakers, magnets, etc.) as this can result in printer malfunctions.

WARNING



If you install the NC-400D on a table, ensure that the front of the printer is at least 16 cm (6.3 in.) back from the edge of the table. This ensures that the paper supply door (when open) or prints tray (when attached) do not extend over the edge of the table, which could lead to the printer being moved, tipped over or knocked off the table and causing injury.



Leave a space of at least 20 cm (8 in.) between the printer and adjacent walls when installing the printer. Also leave some space between the printer and any other devices to allow effective heat dissipation. Accumulation of excessive heat inside the printer will cause a fire.

Power Supply

- Supply power from a dedicated power source with a stable voltage.
- Connect the printer's power plug directly to a grounded wall-mounted power socket that provides at least 15A. The use of desk-mounted power socket extensions, double adapters or multi-socket power boards will result in printer malfunctions.
- Do not connect the printer into a power supply circuit used by another large device such as an air conditioner or photocopier as this will result in printer malfunctions.
- Check the following at regular intervals:
 - That the power plug is securely inserted into the power socket.
 - That the power plug and power cord are not abnormally hot.
 - That the power cord is not cracked or abraded.

Notes on Operation

- Do not attempt any operation not described in this Owner's Manual.
- Do not open the paper supply door or remove the trash box or paper eject unit while the "PROCESS" lamp is lit or blinking as this will interrupt printing and cause a paper jam.
- Do not set the [POWER] switch to off or unplug the power cord while the "PROCESS" lamp is lit or blinking. Cutting the power will interrupt printing and cause a paper jam.
- Use the following procedure to unplug the printer:
 - (1) Check that the "PROCESS" lamp is not lit or blinking.
 - (2) Turn the power switch off.
 - (3) Check that all the lamps on the control panel are off.
 - (4) Unplug the power cord from the power socket.
- If the printer is connected to a PC, do not set the [POWER] switch to off or switch the PC off while the "PROCESS" lamp is lit or blinking as this will make normal printing impossible.

WARNING

If the printer is emitting smoke, is unusually hot to the touch, or is emitting any unusual odor or noise, stop using the printer immediately, turn off the power switch on the printer, and then unplug the printer's power cable from the power socket. After checking that smoke is no longer being emitted, contact your FUJIFILM dealer or authorized FUJIFILM service facility to request repairs.



Cleaning the Printer Casing

- Do not use volatile substances such as thinners, benzene or disinfectants on the printer casing as these may react with the casing or damage the coating.
- Clean the casing by wiping it with a soft cloth. For particularly heavy soiling, apply a neutral detergent diluted with water to a cloth and wipe the casing. Then use a dry cloth to wipe away any moisture.
- Unplug the printer from the power socket before cleaning the printer casing.

NOTES ON SHIPPING THE PRINTER

- When shipping the printer, always check that the power cord and any cables have been disconnected.
- If there is any remaining paper in the paper cartridge, be sure to remove the paper roll. Failure to remove the paper roll will cause a paper jam. Secure the end of the removed paper with tape and return the roll to the protective packaging in which it was supplied. Then expel the air from the package and seal the package with tape for shipping.
- To ship the printer, use the cardboard carton in which the printer was packed when it was purchased.
- This printer is a precision instrument. Ensure that it is not subjected to strong impacts during transportation.

ABOUT Printpix PAPER

Printpix paper is a type of printer paper used for light-fixing thermal color printing.

What Kind of Printpix Paper to Use

Your printer uses the type of paper shown in the table below.

Paper Type	Product Number	Description
Standard	RK-SD???	148 mm (5.8 in.) wide

Notes on Using Printpix Paper

- Use only the special Printpix paper provided by FUJIFILM.
- Unpack and use the paper rolls at temperatures between +18°C (+65°F) and +28°C (+82°F) and a humidity of 40% to 60% RH (no condensation).
- Exposing the paper to direct sunlight or high temperatures can discolor it or prevent correct color reproduction. Once you have unpacked the paper, avoid exposing it to direct sunlight and quickly load it into the paper cartridge.
- Once you have unpacked the paper, use it quickly. FUJIFILM cannot guarantee the quality of paper that has passed its expiration date or has been used incorrectly. Note also that even paper that has not passed its expiration date can deteriorate if exposed to high temperatures or high humidity, such as inside a locked vehicle.
- If the paper is defective in any way because of a fault by the manufacturer, FUJIFILM will provide an equal number of new replacement rolls. We cannot accept responsibility for faults from other causes.
- The paper's color can change from exposure to light or heat, or over time. FUJIFILM is not responsible for any losses occurring as a result of these types of changes.

Notes on Storing Printpix Paper

- Store the paper in a cool, dark location at +25°C (+77°F) or below (such as in a refrigerator). Avoid storing the paper at temperatures of +35°C (+95°F) or above.
 - Before opening paper that has been stored at low temperatures, let the paper warm to room temperature.
- Paper exposed to direct sunlight or to light for long periods may become "exposed" and no longer usable for printing.
 - To estimate light exposure: Printpix paper becomes "exposed" under normal indoor fluorescent lighting at a distance of 2 meters (6.6 ft.) (approx. 500-700 lux) in approximately 5 minutes. Avoid exposure to direct sunlight, which causes Printpix paper to be exposed very quickly.
- Once you've opened the paper roll, do not leave it in the paper cartridge for long periods of time.
 - To store a paper roll that has already been opened for use, return it to the protective package in which it came, expel any remaining air from the package, seal the package tightly with tape, and place it in a cool, dark place.
- Avoid storing paper in the following locations:
 - In a humid or dusty location
 - In a hot location (such as inside a vehicle in summer or near a heating appliance)
 - In direct sunlight

Notes on Storing Printed Images

- Do not expose printed paper to strong light for long periods. Store it in a location with low humidity.
- Do not store printed pages so that the printed images are in direct contact with each other, since the images can become discolored.
- Do not place printed images in direct contact with soft PVC or rubber since the image can discolor or fade.
- Do not allow printed images to come into contact with organic solvents (such as alcohol).

Items that Cannot be Printed

The possession of duplication equipment does not entitle one to making duplicates of anything and everything. These are cases where legal restrictions are enforced.

CAUTION (for Customer in US/Canada)

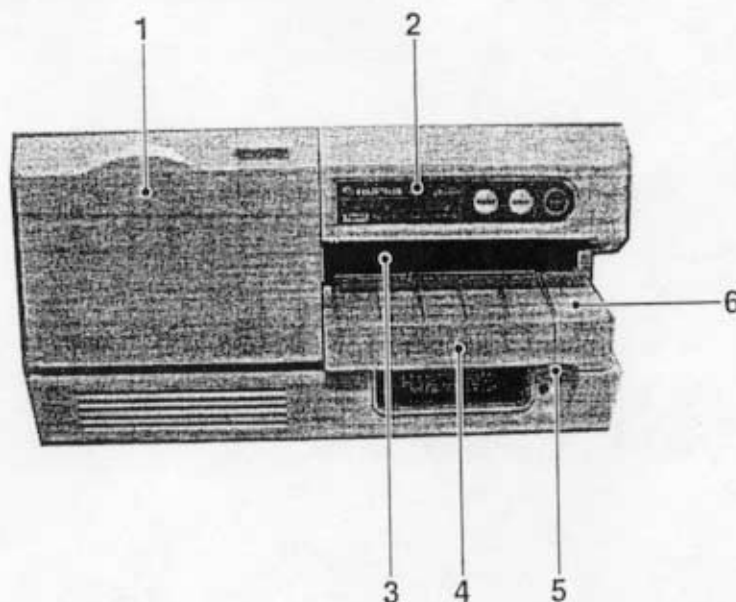
- The reproduction of certain documents or subjects is prohibited by law. Violation may result in civil and/or criminal liability.
- Reproduction of the following is prohibited under certain circumstances:
 1. The following documents — obligations — or securities of the United States Government or its Agencies:
 - Paper money.
 - Certificates of indebtedness, in the form of bonds, notes or otherwise.
 - Certificates of deposit.
 - Internal revenue stamps (cancelled or uncanceled)
 - Postage stamps (cancelled or uncanceled)
 - Certificates of citizenship or naturalization.
 - Passports
 - Badges, identification cards or insignias which are carried by members of various United States Departments and/or Agencies.
 2. Licenses and certificates of title to motor vehicles (in certain states).
 3. Copyrighted material, unless permission of the owner is first obtained or other exception applies.
- The above list is intended as a guideline and is not necessarily exhaustive. FUJIFILM makes no representations as to its completeness or accuracy. Please consult your attorney where a question arises as to a particular document or subject matter.

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- There are items whose duplication is prohibited by law. DO NOT duplicate such items, or make duplicates that may be used for illegal purposes.
- With materials that are protected by copyrights, you must obtain the permission of the copyright owner. Reproduction without such permission constitutes an infringement of the law.

NAMES AND FUNCTIONS OF COMPONENTS

Front Panel



1 Paper supply door

To open the paper supply door, pull lightly on the top-right corner of the door (shown by the "PULL" label). The jam driver and paper cartridge are located inside.

2 Control panel

Displays the printer's status, and is used to enter settings.

3 Prints eject slot

Printed paper is ejected from this slot.

4 Trash box

Holds the paper clippings produced when the paper is trimmed for borderless prints.

5 Paper eject unit lock release button

To open the paper eject unit, push the lock release button up and pull the unit out.

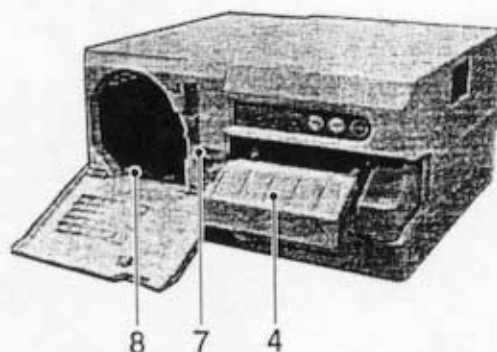
6 Paper eject unit

Remove this unit to clear paper jams in the paper eject area.

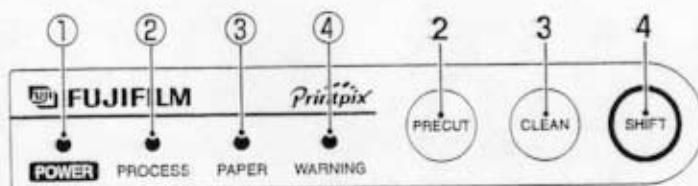
7 Jam driver

Rewinds the paper roll into the paper cartridge in the event of a paper jam.

8 Paper cartridge chamber



Control Panel



1 LED lamp

* See P.35 for details of the LED lamp displays and the correct responses.

① POWER lamp	lamp lit green	The printer is ON.
	lamp off	The printer is OFF.
② PROCESS lamp	lamp lit green	Printing in progress
	lamp blinking green	Warming up, UV (ultraviolet) lamp (Y, M) error warning
	lamp off	Ready state
③ PAPER lamp	lamp lit green	Paper is loaded.
	lamp blinking green	Paper supply error warning
	lamp off	Out of paper.
④ WARNING lamp	lamp lit red	Various error warnings
	lamp blinking red	Paper jam or other error warning
	lamp off	Normal operation

2 [PRECUT] key

Press this key to perform precutting.

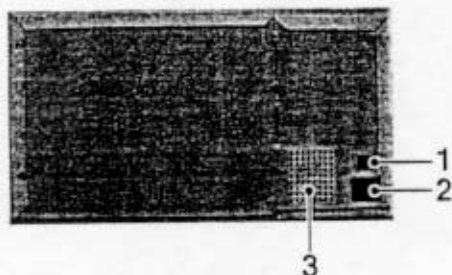
3 [CLEAN] key

Press this key to perform print head cleaning.

4 [SHIFT] key

Hold down the [SHIFT] key and press [PRECUT] key to switch the printer to Test Print mode.

Rear Panel



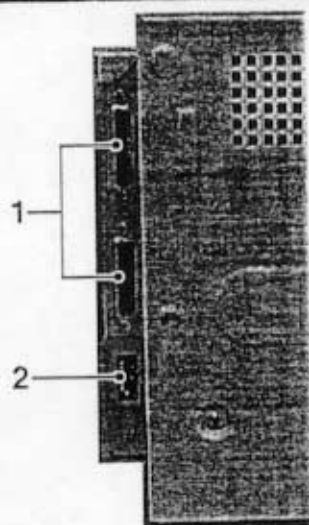
1 [POWER] switch

Turn the printer on and off.

2 ~ (Power Input) socket

Plug the power cord (provided) in here.

3 Ventilation grilles (cooling fan)

Side Panel (Left)**1 SCSI ports (2)**

Use these ports to connect to the SCSI port on a PC via a SCSI cable.

2 DIP switches

Use these to set the SCSI ID, SCSI terminator ON/OFF setting, and the SCSI Parity check ON/OFF setting.

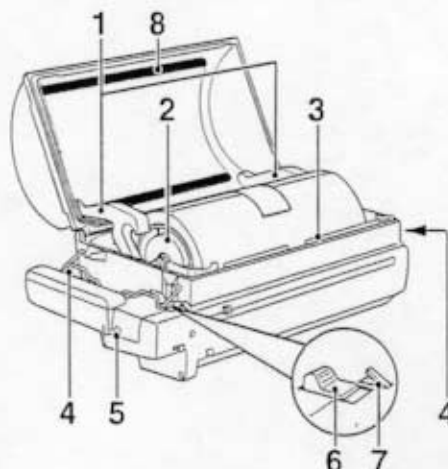
■ Installing the prints tray

Depending on how the printer is used, attach the prints tray (accessory) to the lower part of the printer's front panel.



Paper Cartridge

Fit the paper flanges (provided) into the paper roll and load the roll into the paper cartridge.



1 Flange retainer levers

Used to hold the paper roll in place.

2 Paper flanges

Used to insert the paper roll into the paper cartridge.

3 Paper alignment guide (Green line)

Used to align the edge of the paper roll.

Be sure to align the paper:

- When loading a new paper roll.
- When re-inserting the paper after clearing a paper jam.

4 Clips

Hold the upper cover of the paper cartridge (one on each side).

5 Paper jam hole

When a paper jam occurs, the jam driver is inserted into this hole, and the paper is rewound into the paper cartridge.

6 Locking lever

Locks on the right side when the paper cartridge is correctly inserted into the printer. To remove the paper cartridge, push the locking lever to the left and remove the cartridge.

7 Paper indicator

During paper feeding, this red indicator is not visible.

When you remove the paper cartridge, make sure that the paper indicator is raised.

Also, when you are clearing a paper jam, wind the paper fully back into the cartridge until the indicator pops up.

8 Paper loading procedure label (Operation procedure label)

Shows how to load the paper roll into the paper cartridge.

2. SETTING UP

WHERE TO SET UP THE PRINTER

The location in which you set up the printer should have the following environmental conditions:

Environment

- A level location capable of holding the weight of the printer (approximately 15 kg (33 lb.) including paper cartridge)
- Away from devices (such as air conditioners) that generate strong electromagnetic waves
- Free from vibration
- Temperature range: +5 to +35°C (+41 to +95°F) (recommended range: +18°C (+65°F) to +28°C (+82°F))
- Humidity range: 20 to 80% RH (no condensation) (recommended humidity range: 40% to 60% RH)
- Away from direct sunlight
- Free from excessive dust
- Away from heat sources
- Away from obstacles, and well ventilated

Power Supply

This Printer accept input voltage

- AC 110-120 V (4 A) and frequency 60 Hz (US/Canada model)
- AC 220-240 V (2 A) and frequencies 50 Hz (Europe model)
- Power sockets properly grounded
- No connection to sockets for equipment that generates electrical noise

Printer Space

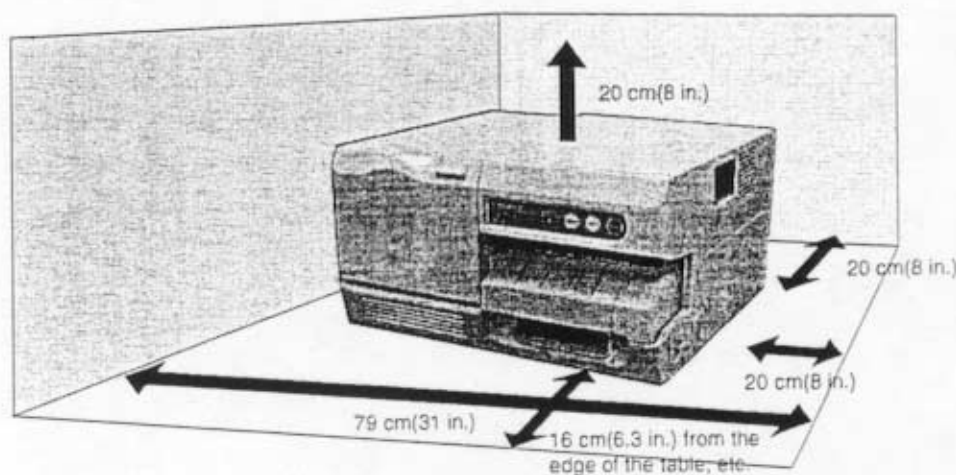
⚠ WARNING



If you install the NC-400D on a table, ensure that the front of the printer is at least 16 cm (6.3 in.) back from the edge of the table. This ensures that the paper supply door (when open) or prints tray (when attached) do not extend over the edge of the table, which could lead to the printer being moved, tipped over or knocked off the table and causing injury.



Leave a space of at least 20 cm (8 in.) between the printer and adjacent walls when installing the printer. Also leave some space between the printer and any other devices to allow effective heat dissipation. Accumulation of excessive heat inside the printer will cause a fire.



INSTALLING THE PRINTER

Install the printer as described below.

 The printer weighs roughly 15 kg (33 lb.) (including the paper cartridge) and should be carried by 2 people wherever possible to avoid back or shoulder injury.

- 1** Remove the printer from its cardboard package.
- 2** Remove the protective sheet from the printer.
- 3** Open the paper supply door on the printer.
- 4** Remove the paper cartridge.



For details on steps 3 and 4, see "LOADING PAPER" on page 24.