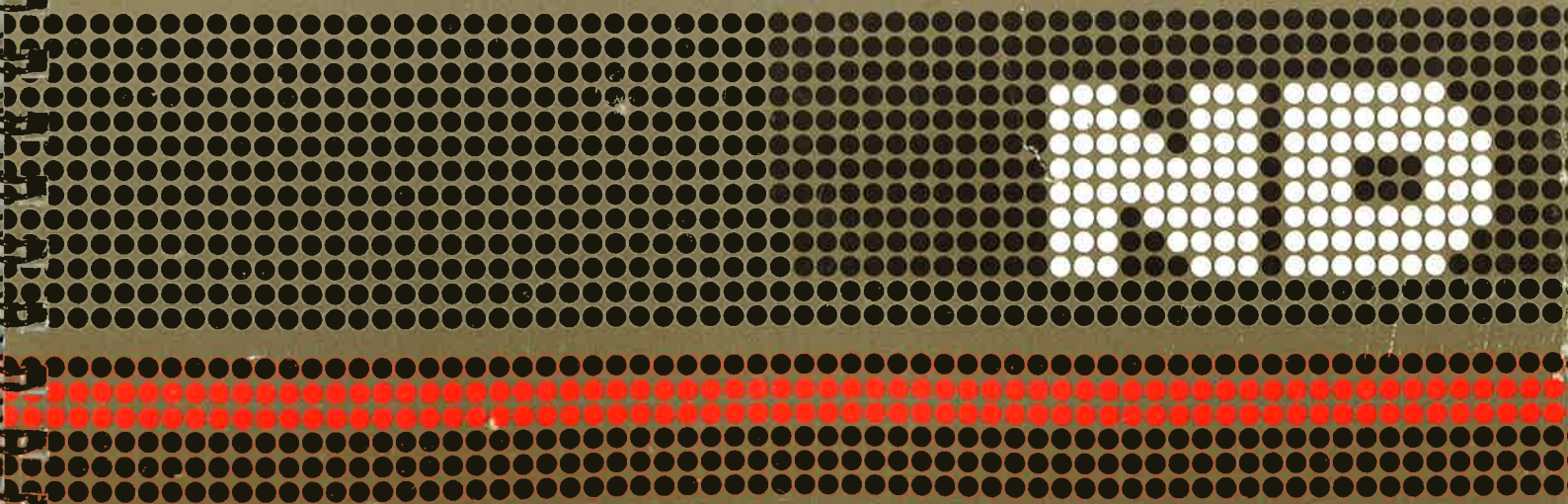




# **ND-100 SATELLITE Operator Guide**

ND-30.041.1 EN



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April 1986

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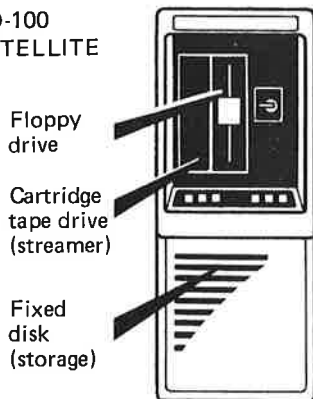
## PREFACE

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### WHAT IS THE ND-100 SATELLITE?

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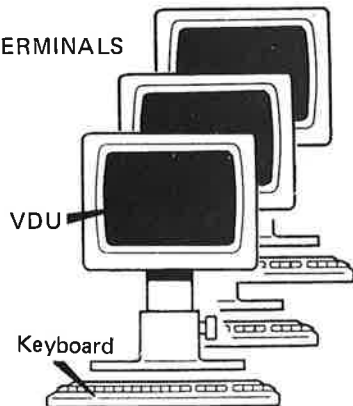
ND-100  
SATELLITE



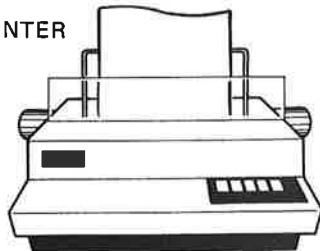
CONSOLE  
TERMINAL



TERMINALS



PRINTER



The ND-100 Satellite is a compact computer intended for use in office environment. It is small, quiet and easy to operate. It has a built-in floppy drive, as well as an internal storage device (a fixed disk). It will also normally be equipped with a cartridge tape drive (streamer).

Telefix, a system which permits analysis of errors in the computer directly from Norsk Data's Service Center, is available.

In addition to the ND-100 Satellite, your computer system consists of the following:

- a CONSOLE TERMINAL, which is the main terminal of the system, normally used by the system supervisor
- one or more USER TERMINALS, each consisting of a KEYBOARD and a VDU (Visual Display Unit)
- a PRINTER

#### NOTE

The technical expressions used in this manual are explained on page 45.

## WHO CAN USE THIS MANUAL?

---

You will need this manual if you are a REGULAR USER or a SYSTEM SUPERVISOR.

As an REGULAR USER, you are responsible for:

- copying your data files onto floppy diskettes for safe keeping (this is called taking PERSONAL backup)
- correcting simple errors
- calling the system supervisor if a fault occurs which you are unable to correct

You will find all the information needed to carry out these duties in the chapters marked "FOR ALL READERS" (see table of contents) No prior knowledge of computers is needed to understand these chapters.

As a SYSTEM SUPERVISOR, you have the same duties as the regular user, but in addition your tasks include:

- installing the system and getting it operational

- creating users and allotting them user areas on the fixed disk
- regularly copying all data files onto a streamer tape or floppy diskettes for safe keeping (this is called taking SYSTEM backup)
- carrying out preventive maintenance on the streamer and floppy drives
- handling error situations
- installing programs

Most of these points are covered in the chapters marked "FOR THE SYSTEM SUPERVISOR". For additional information, consult the following manuals:

SINTRAN III System Supervisor	ND-30.003
SINTRAN III Introduction	ND-60.125
SINTRAN III Reference Manual	ND-60.128
ND Backup User Guide	ND-60.250
USER ENVIRONMENT Ref. Manual	ND-60.179



OPERATOR



SYSTEM SUPERVISOR

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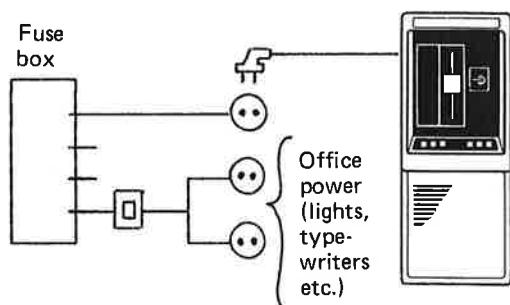
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## 1. INSTALLING YOUR ND-100 SATELLITE (SYSTEM SUPERVISOR)

### NOTE

The ventilation grills on the top of the cabinet must not be blocked. Never place papers or any other objects on top of the cabinet.

### POWER REQUIREMENTS



To reduce the risk of unwanted power breaks, which might lead to loss of data, the ND-100 Satellite should be given a separate power circuit which bypasses the switch for the office power.

### HOW TO CONNECT TERMINALS AND PRINTERS

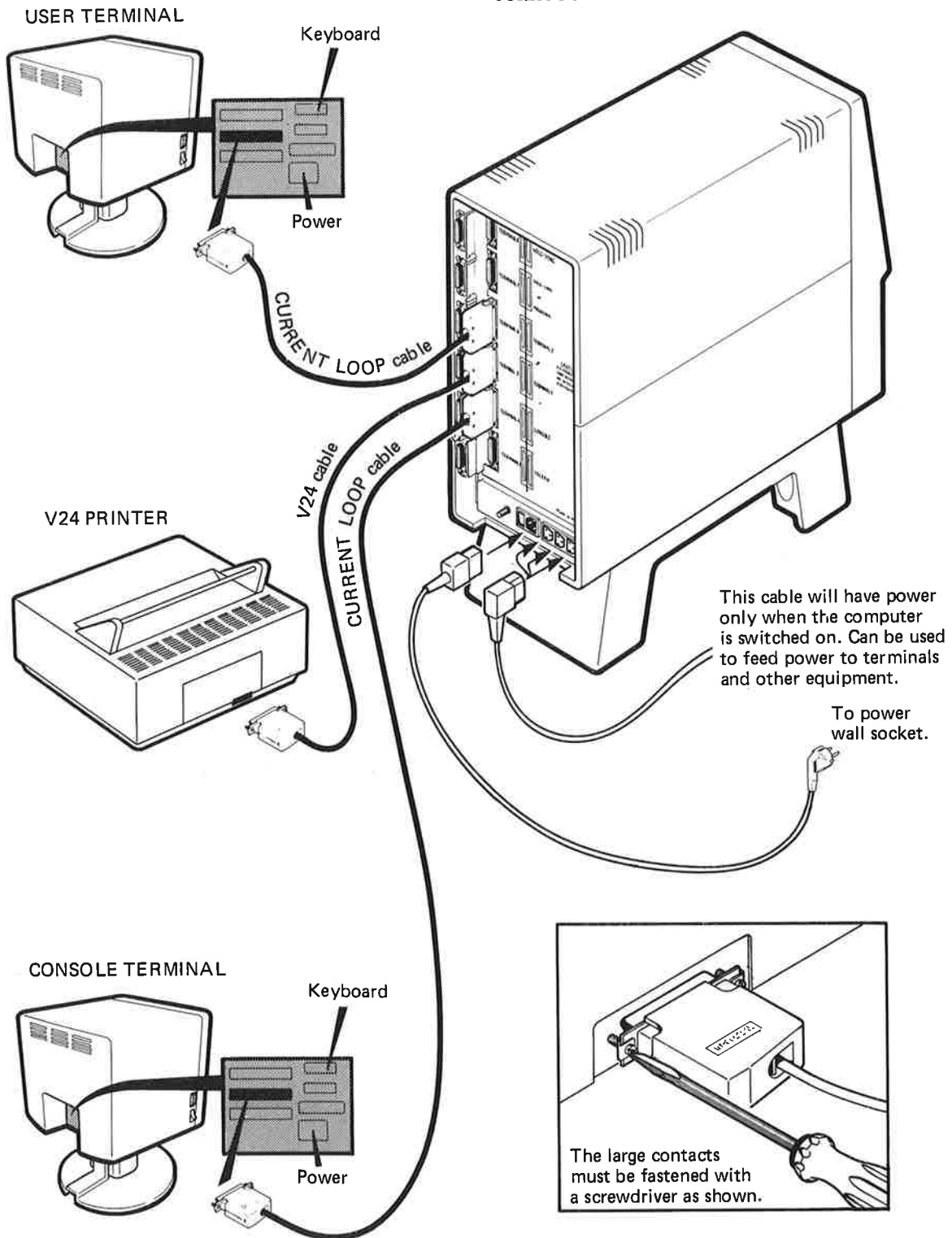
There are two types of connecting cables. CURRENT LOOP is the most common in this system, but some printers may require a V24 cable.

If your system includes a printer, find out you which type of cable fits the socket mounted on the printer. You will then know if it is a V24 or current loop printer.

The equipment is connected to the ND-100 Satellite by the following procedure:

- Select each socket to be either current loop or V24 by setting the selector switches on the terminal interface card.

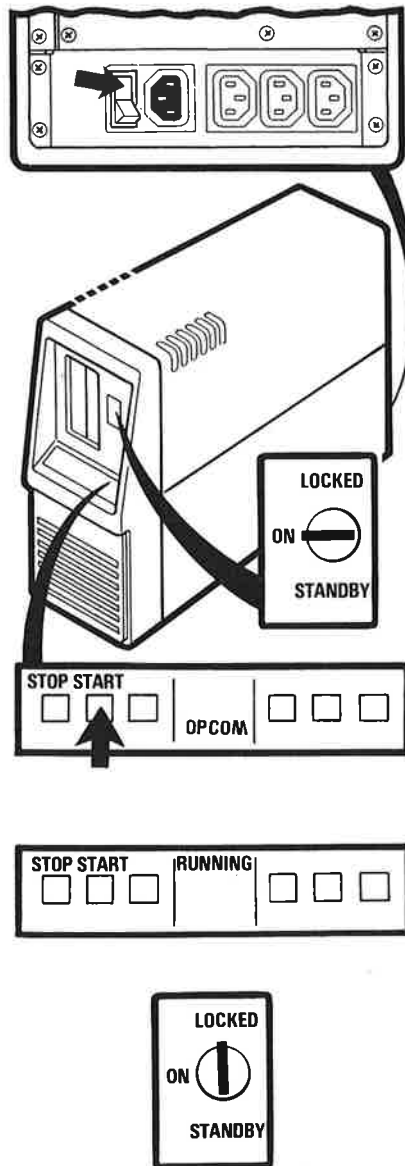
- Connect the console terminal to the socket marked CONSOLE, using a current loop cable.
- In addition to the console terminal, a total of eight units (terminals and printers) can be connected.



**2. STARTING THE SYSTEM**

**(SYSTEM SUPERVISOR)**

**SWITCHING ON**



- 1) Locate the mains switch at the back of the computer and switch it on.
- 2) Go to the front of the computer and turn the key switch to position ON.

**CAUTION**

Do not move the computer after the key switch has been turned ON, as this may damage the disk.

- 3) Press the START button to start the computer.
- 4) Wait until the word 'running' appears on the operator panel. Then turn the key switch to the LOCKED position. This blocks the operator panel, so that nobody can use it while the computer is running.





Standby batteries

**CAUTION**

The computer has a standby battery which will keep the system alive for approximately 12 minutes in case of power failure. To prevent undesirable discharge of this battery, observe the following:

While the key switch is in ON or LOCKED position, never switch off the main switch at the back or in any other way disconnect the computer's power. This would discharge the standby battery within 12 minutes.

Always set the key switch to position STANDBY before switching the mains switch off, or otherwise cutting off the power to the computer.

**LOGGING IN**

---

**NOTE**

In this manual, everything that YOU are expected to type in from your terminal is shown underlined. In user names and passwords, hyphens (-) must be used instead of spaces between the words.

To get in touch with the computer's operating system, you must LOG IN.

To log in, you need a USER NAME. The user name is the name by which the computer knows you. Your user name as a system supervisor is SYSTEM.

ESC

```
ENTER SYSTEM↵
```

```
PASSWORD: PASSWORD↵ (invisible)
```

```
OK
```

```
@
```

- 1) You may have to wait about one minute after switching on the computer before the consoler terminal is ready.
- 2) Press the ESC key in the upper left corner of the keyboard.
- 3) The word ENTER appears on the screen. Type SYSTEM and then press ↵ (carriage return).
- 4) The word PASSWORD appears. If you do not have a password yet, simply press ↵. If you know that a password has been programmed in, type it, and then press ↵.
- 5) OK is displayed on your screen. On the next line, the sign '@' appears. The '@' is called the SINTRAN sign. It means that you are in contact with SINTRAN, which is the computer's operating system. You can think of SINTRAN as a 'traffic control' system in the computer (remember that several people may be using the computer at the same time, so some sort of traffic control is needed).

## HOW TO USE SINTRAN

---

You communicate with the computer by using SINTRAN commands. There are three important things to remember about these commands:

- They can only be typed in when the SINTRAN SIGN '@' or the words 'SINTRAN command' are displayed. This indicates that the computer is ready to receive a command.
- As in a user name, hyphens must be used instead of spaces between words.

- The command is not carried out until the ↵ key is pressed.

Here is a useful SINTRAN command which you can try straight away. Type WHO-IS-ON followed by ↵. This tells you who is using the computer, and their terminal numbers. At present, you are the only user.

```
@WHO-IS-ON↵
```

## CREATING USERS

---



Creating a user

As a system supervisor, one of your tasks is to CREATE USERS. This simply means to 'introduce' a person to the ND-100 Satellite, so that the computer will 'recognize' this person when he or she tries to log in.

When creating a user, you must also reserve some space for him/her on the computer's storage device (the fixed disk). Depending on its size, the fixed disk in the ND-100 Satellite contains 16, 22, 45 or 74Mb which must be shared between the different users.

In this example, we assume that you create a user with the user name ANNE, who needs 250 pages. Type in the instructions as shown to the left:

```
@CREATE-USER↵
```

```
USER NAME: ANNE↵
```

```
@GIVE-USER-SPACE↵
```

```
USER NAME: ANNE↵
```

```
NUMBER OF PAGES: 250↵
```

## DELETING A USER

---

```
@DELETE-USER↵
```

```
USER NAME: ANNE↵
```

You can delete a user with the SINTRAN command DELETE-USER.

### NOTE

A user cannot be deleted as long as he or she still has files on the disk. All files must first be erased.

## INCREASING OR REDUCING THE NUMBER OF PAGES

---

You can increase the number of pages allotted to a user by means of the SINTRAN command GIVE-USER-SPACE.

If there are no more pages available, you can take unused pages from another user with the SINTRAN command TAKE-USER-SPACE.

## STARTING THE USER ENVIRONMENT PROGRAM

---

USER ENVIRONMENT is a program which makes it very easy for inexperienced users to start using the ND-100 Satellite. When logging in, you will get a menu which looks like this:

```
----- M A I N   M E N U -----
Date:1985-2-16                               Time:12:18:35
User:YOUR NAME                               Current user area:YOUR-USER-NAME

1 Office Automation
2 Program Development
3 Remote Systems
4 User Area Maintenance
5 System Maintenance

Task name:.....
```

You choose one item on the menu by typing the number of the item or moving the "inverse video cursor" to the desired item, with the up-arrow and down-arrow keys (↓ and ↑) and pressing the carriage return key (↵). A submenu appears on the screen, from which further choices can be made.

HELP

NOTE

Further on-screen information about the menu and how to use it can be obtained by pressing the HELP key. Press EXIT to get the menu back.

In some installations, the USER ENVIRONMENT program must be started manually when the computer is switched on. If you want automatic loading of USER ENVIRONMENT, contact your ND representative, who will arrange it. USER ENVIRONMENT will then be automatically switched on when the ND-100 Satellite is started.

Information on how to start USER ENVIRONMENT manually can be found on the Program Description sheet.

## 'MOVING' THE USERS INTO THE USER ENVIRONMENT PROGRAM

---

Although USER ENVIRONMENT is now operating, it is still 'empty', i.e. it does not have any users except yourself. What you must do now is to 'move' the users you created earlier (page 6) into the USER ENVIRONMENT program, so that they can use it.

@LOG ↵

ESC

- 1) Log out by giving the SINTRAN command LOG. Then press the ESC key. You get the screen picture shown below.

- 2) Type your name, which is SYSTEM, followed by ↵ (carriage return) Then type your password, which is SYSTEM, followed by ↵. The password is NOT DISPLAYED on the screen.

ND-10518B

U S E R    E N V I R O N M E N T

Enter your name    :    SYSTEM↵.....

Enter password    :    SYSTEM↵ (invisible).....

4

- 3) You get the MAIN MENU shown on page 7. Choose 'User Area Maintenance' by typing 4. You get the following submenu:

— M A I N   M E N U —

Date:1985-2-16		Time:12:18:35
User:YOUR NAME		Current user area:YOUR-USER-NAME

1 Office Automati	User Area Maintance
2 Program Develop	1 Personal Backup
3 Remote Systems	2 Change User Area
4 User Area Maint	3 User and Terminal Profiles
5 System Maintena	

3

- 4) Choose 'User and Terminal Profiles' by typing 3. You get the following screen picture:

```

                                U S E R   P R O F I L E           ND-10518B
User:SYSTEM
-----
User name       :                               Letter:
Password       :
Standard task   :
Language       :
User level     :
-----
User groups     :
Authorization   :                               SINTRAN:
Main user area :
Alternative areas :
Menu system    :

```

F2

- 5) Press the F2 key in the right-hand section of the keyboard. The words 'User name' now change to 'Create user'.

```

                                U S E R   P R O F I L E           ND-10518B
User:SYSTEM
-----
Create user    :

```

```

                                U S E R   P
User:SYSTEM
-----
Create user    : ANNE SMITH↵
Password      : PASSWORD↵
Standard task  :
Language      :
User level    :
-----
User groups    :
Authorization  :
Main user area : ANNE↵

```

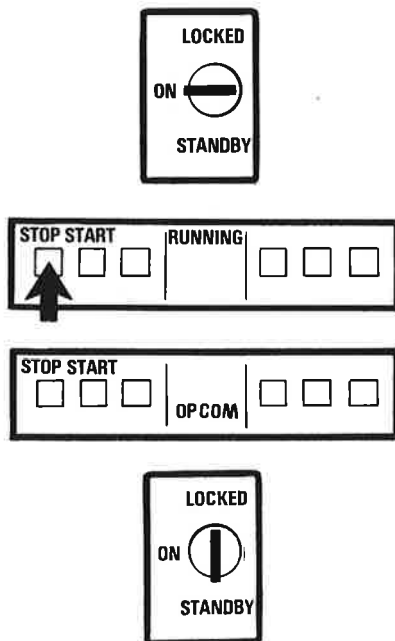
- 6) Type the user's real name (first and last name) followed by ↵. Then type the password you have chosen for this user, followed by ↵. (The password is not displayed. Write the password down, and give it to the user later on.) Then type the user's USER NAME (which you assigned when you created the user), followed by ↵. The user ANNE, whose real name is ANNE SMITH, has now been defined in the USER ENVIRONMENT program, and can start to use it.
- 7) Press the EXIT key to get back to the main menu, and repeat the procedure for another user, if there are any.

You can change the USER PROFILE to meet the requirements of each individual user. This is explained in the USER ENVIRONMENT Reference Manual, ND-60.179.2.

## SWITCHING OFF

It is normally unnecessary to stop the computer. However, if you must stop it, e.g. in order to move it, proceed as follows:

- 1) Before stopping the computer, you must make sure that the system is not being used by anyone. To do this, you use the SINTRAN command WHO-IS-ON (on how to use SINTRAN commands in USER ENVIRONMENT, see page 14).
- 2) Turn the key switch to position ON.



### CAUTION

Before continuing, double-check that all users have logged out. If someone is using the system when you press the STOP button, data on the fixed disk may be lost.

- 3) Press the STOP button on the operator panel.
- 4) Turn the key switch to position STANDBY.

### CAUTION

Do not move the computer until 30 seconds after the key switch has been turned to the STANDBY position, as this may damage the disk.



3. LOGGING IN AND GETTING STARTED (ALL READERS)

LOGGING IN



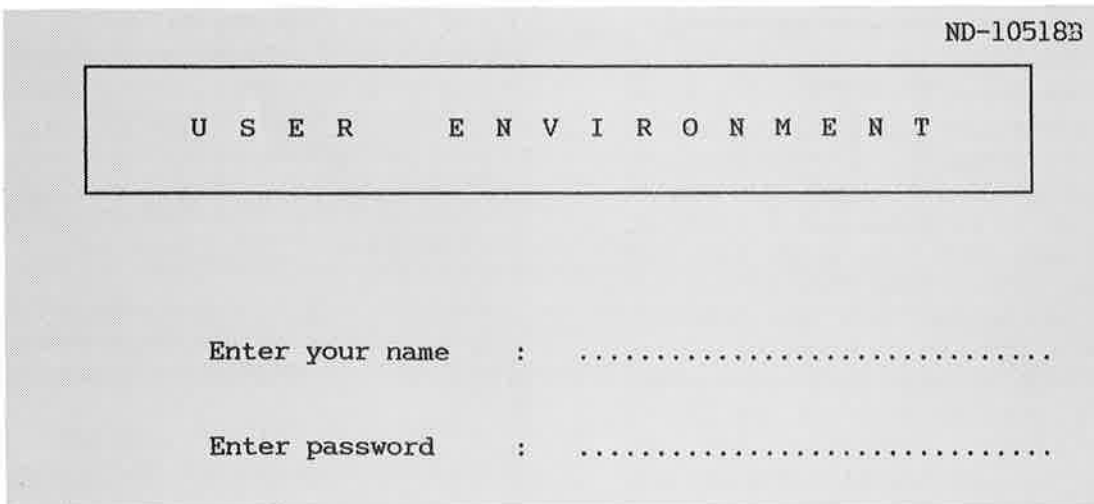
Using the computer

When using the computer, the first thing you must do is to get in touch with it, i.e., you must LOG IN.

To log in, you need a user name and a PASSWORD. The password is necessary so that no one but you can log into the computer using your name. Ask your system supervisor what your user name and password are.

Having found out what your password is, you can start logging in as follows:

- 1) Check that the green lamps ON and LINE at the top of the keyboard are lit. If not, see page 16.
- 2) Press the orange key marked ESC in the upper left corner of the keyboard. The following picture appears on your screen:



## NOTE

In this manual, everything that YOU type is shown underlined.

- 3) Type your user name followed by ↵. (The name ANNE SMITH is used as an example) The ↵ key is the large orange key to the right of the light grey keys. It is called carriage return.

Enter your name       :   ANNE SMITH↵.....

If you make a typing error, you can erase the letters with the orange key marked ⌫ above the ↵ key. If you do not discover the error until you have moved to the next line, you can move back by using the brown key marked ↑.

- 4) Type your password followed by ↵. The password is not displayed on the screen.

Enter password        :   PASSWORD↵ (invisible).....

- 5) If you have done everything correctly, the MAIN MENU appears on the screen. If not, see page 17.

## NOTE

Whenever you have a menu on the screen, you can press the HELP key to get further information on the menu and how to use it. Press the EXIT key to get the menu back.

— M A I N   M E N U —	
Date:1985-2-16	Time:12:18:35
User:YOUR NAME	Current user area:YOUR-USER-NAME
<p>1 Office Automation</p> <p>2 Program Development</p> <p>3 Remote Systems</p> <p>4 User Area Maintenance</p> <p>5 System Maintenance</p>	
Task name:.....	

6) If you are a SYSTEM SUPERVISOR, you can choose any item on this menu by typing a number between 1 and 5. You can also give orders directly to the computer by typing the SINTRAN sign @. You will then move to the line 'Task name:....', and you can type your SINTRAN command here. If you are a a REGULAR USER, you will normally type 1. You then get the following SUBMENU:

1

— M A I N   M E N U —	
Date:1985-2-16	Time:12:18:35
User:YOUR NAME	Current user area:YOUR-USER-NAME
<p>1 Office Automati</p> <p>2 Program Develop</p> <p>3 Remote Systems</p> <p>4 User Area Maint</p> <p>5 System Maintena</p>	<p>Office Automation</p> <hr/> <p>1 Word Processing and TELEX</p> <p>2 Document Storage</p> <p>3 Spreadsheet</p> <p>4 Queries</p> <p>5 Report Generator (Make reports)</p> <p>6 Report Processor (Run reports)</p> <p>7 Information Retrieval</p> <p>8 Mail system</p> <p>9 Business Graphics</p>

- 7) You may choose any item on this menu by typing a number between 1 and 9. For further instructions on how to use the different systems, see the relevant manuals. If you choose 1, you get another submenu:

1

M A I N M E N U		
Date:1985-2-16	Time:12:18:35	
User:YOUR NAME	Current user area:YOUR-USER-NAME	
	Office Automation	
1 Office Automati		Word Processing and Telex
2 Program Develop	1 Word Proc	1 Create Document
3 Remote Systems	2 Document	2 Edit Document
4 User Area Maint	3 Spreadshe	3 Format Document
5 System Maintena	4 Queries	4 Inspect Document
	5 Report Ge	5 TELEX
	6 Report Pr	
	7 Informati	
	8 Mail syst	
	9 Business	

- 8) To get back to a previous menu, press the EXIT key in the upper right corner of the keyboard.

EXIT

## LOGGING OUT

---

When you have finished your work, you must break contact with the computer.

To do this, first return to the main menu by pressing the EXIT key the required number of times (depending on which menu level you are on). Then press the EXIT key once more.

EXIT

The computer will now ask:

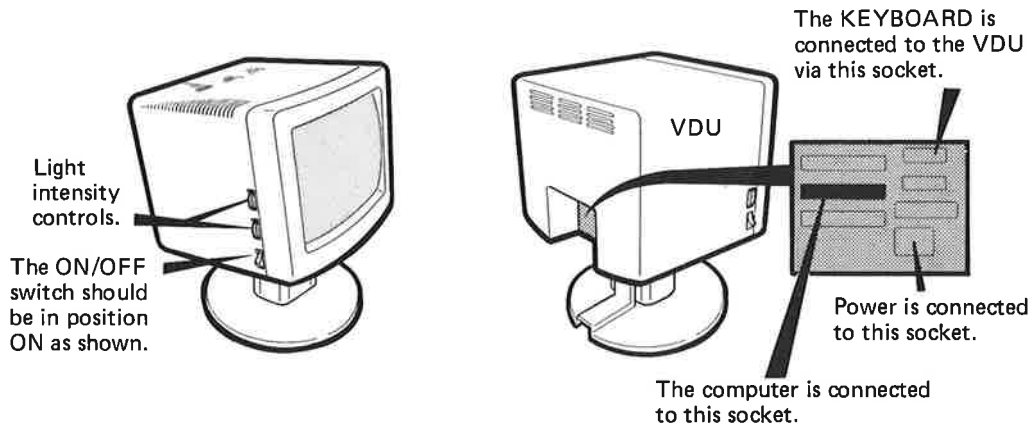
Do you want to finish your work at the terminal (Yes/No)?

Type Y (for yes) followed by ↵.

The computer responds by giving the time of your logging out, followed by the word EXIT.

Make it a HABIT to log out when leaving the terminal.

## IF SOMETHING GOES WRONG



### FAULT

### WHAT TO CHECK OR WHAT TO DO

ON lamp on terminal not lit.

On/off switch on?  
VDU connected to mains voltage?

LINE lamp on terminal not lit.

Keyboard connected to VDU?  
VDU connected to data socket?  
Press the brown LOCAL key in the top row of the keyboard a couple of times.

## FAULT

## WHAT TO CHECK OR WHAT TO DO

Other lamps on terminal lit.

EXP LAMP LIT: Press the orange INS/EXP key on the left-side of your keyboard.

APP LAMP LIT: Hold the SHIFT key down while pressing the orange INS/EXP key. The SHIFT key is the unmarked light grey key in the lower left (and right) corner of the main keyboard.

BUSY, MSG., CAR, WAIT, or ERROR LAMP LIT: Call your system supervisor.

You get nothing on your screen

Are the 'light intensity' controls on the left side of the VDU turned up? If this was not the problem, call your system supervisor.

The computer writes:  
"User name must be given"  
(or)  
"Password must be given"

You have forgotten to type your user name or password when logging in. Go back by pressing the brown ↑ key and type the correct name or password. If you do not know your user name or password, contact your system supervisor.

The computer writes:  
"User name/password not recognized"

The computer has rejected your user name or password. Go back by pressing the brown ↑ key and try again, taking great care to avoid spelling mistakes. Remember: hyphens (-) between the words.

## NOTE

Do not repeat an unsuccessful log-in procedure more than ten times (see below).

**FAULT****WHAT TO CHECK OR WHAT TO DO**

The computer writes:  
"Too many attempts  
to enter"



The system supervisor  
will give you a hand

If you repeat an unsuccessful log-in procedure more than a predefined number of times (normally ten), the computer will suspect that you are an unauthorized user trying to log in without knowing the user name (or password). The computer displays the words TOO MANY ATTEMPTS TO ENTER and further log-in attempts from your keyboard are blocked. In this case you will need your system supervisor to 'bail you out'.

To the system supervisor:

You can release the user from this situation with the SINTRAN command STOP-TERMINAL (how to use SINTRAN commands in USER ENVIRONMENT is explained on page 14). You must also know the terminal number, which can be found by using the WHO-IS-ON command.

You forgot your password:

Call your system supervisor.

To the system supervisor:

You can change the password by choosing USER AREA MAINTENANCE on the main menu, and then USER AND TERMINAL PROFILES on the submenu. You then type the new password, followed by ↵.

You get an unfamiliar text  
(perhaps an error message)  
on your screen.

Call your system supervisor.

To the system supervisor:

An explanation of some error messages is found at the end of this manual. Otherwise, refer to the manual SINTRAN III System Supervisor, ND-30.003.

---

## 4. TAKING PERSONAL BACKUP

---

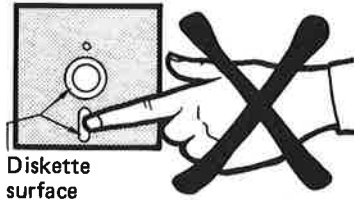
(ALL READERS)

---

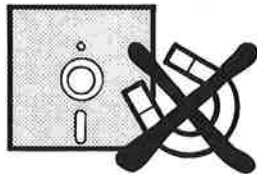
### HOW TO TAKE CARE OF YOUR DISKETTES

---

Good diskette habits will minimize the risk of losing data. For your own benefit, always follow these rules:



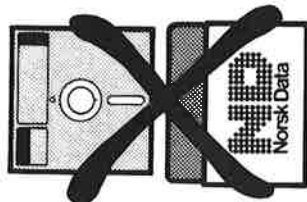
- Do not touch the diskette surface!



- Keep the diskettes away from magnetic fields. Do not place them on top of your terminal or other equipment.



- Do not bend or fold the diskettes.



- Keep the diskettes in their envelope when they are not in use.

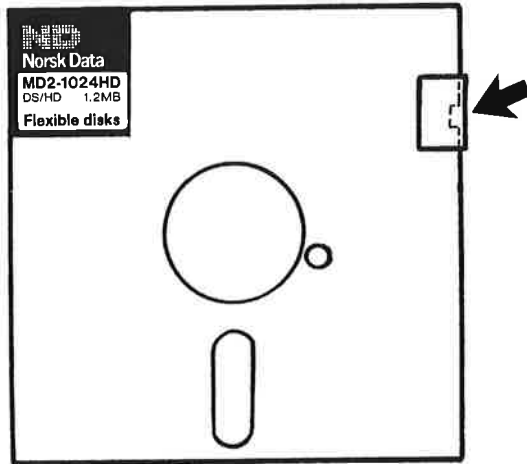


- Be careful when inserting the diskette in the floppy drive. NEVER leave it halfway inserted in the open door.

- Do not drop the diskette on the carpet, and if you do, pick it up again immediately, as the static electricity may damage the data.



## WRITE PROTECTION



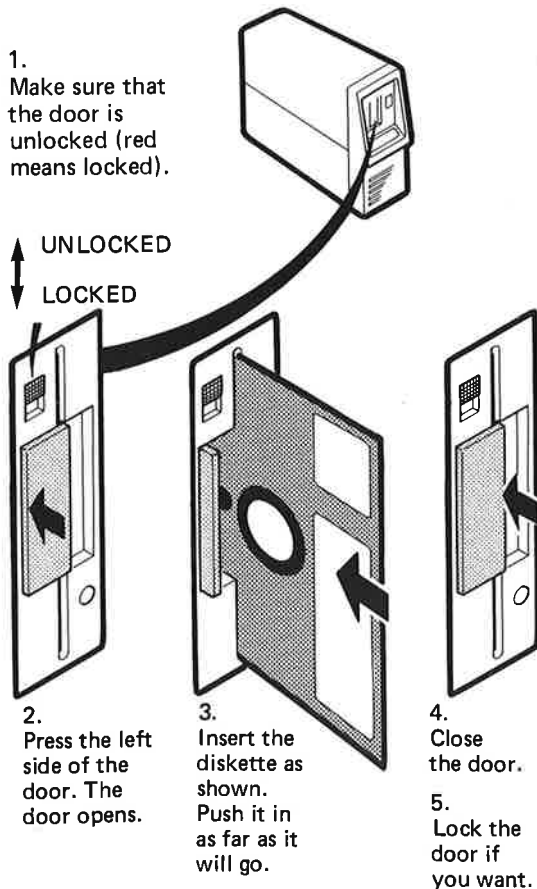
You can protect your diskettes against unwanted erasure by placing a small metal foil (enclosed in the diskette pack) over the indentation at the side of the diskette, as shown. It will now be impossible to record anything on this diskette.

### NOTE

When using a diskette, always check that it has not been protected against recording.

## INSERTING A DISKETTE IN THE FLOPPY DRIVE

You insert the diskette as shown:



## HOW TO FORMAT YOUR DISKETTES

---

If your diskettes are supplied by Norsk Data, you can skip this section.

If your diskettes are from another supplier, you must format them before use. To format a diskette means to prepare it for data storage. In the formatting process, the diskette is divided into numbered sectors.

### CAUTION

If the diskette contains data, this data will be lost in the formatting process.

Formatting is done as follows:

- 1) Insert the diskette.
- 2) Log in on a terminal.
- 3) When you get the MAIN MENU, type @. You will then move to the line 'Task name:....'.
- 4) Type the instructions as shown:
- 5) The formatting is completed when the @ sign reappears (a couple of minutes).
- 6) Press the EXIT key to get your menu back.

```
@DEVICE-FUNCTION↵
FILE NAME: FLOPPY↵
FUNCTION: SET-FORMAT↵
FORMAT: 17↵
```

```
@DEVICE-FUNCTION↵
FILE NAME: FLOPPY↵
FUNCTION: FORMAT-FLOPPY↵
```

You also use this procedure if you want to 'erase' the old contents of a diskette and store new data on it.

## PERSONAL BACKUP - COPYING TO A DISKETTE

---

When you use the computer, the work you do (your data files) is stored in the computer's storage device (disk). To take a personal backup means to make a copy of your files on a diskette. This is done for safety reasons, in case the original gets lost.

### NOTE

If you run into trouble, you can usually 'get out' by pressing the ESC key and start from the beginning again.

- 1) Log in on a terminal.
- 2) On the main menu, choose 4 (User Area Maintenance). You get the following submenu:

4

M A I N   M E N U	
Date:1985-2-16	Time:12:18:35
User:YOUR NAME	Current user area:YOUR-USER-NAME
1 Office Automati 2 Program Develop 3 Remote Systems 4 User Area Maint 5 System Maintena	User Area Maintance 1 Personal Backup 2 Change User Area 3 User and Terminal Profiles

**1**

- 3) On the submenu, choose 1 (Personal Backup), and "Ba-sy:" appears on the VDU.
- 4) Before taking backup, you must CREATE VOLUME, i.e. reserve space on the floppy diskette, and give this space a name. You can, for example, choose the name you logged in under. The maximum number of letters is six. The name ANNE is chosen as an example here. The values between the quotation marks , 'and', are the defaults which are used if only carriage return (↵) is given. Type the instructions as shown:

```
Ba-sy: CREATE-VOLUME↵  
Volume name: ANNE↵  
Device name 'FLOPPY-DISK-1': ↵  
Device unit '0': ↵
```

**NOTE**

If you later take another backup on THE SAME diskette, you can use the volume already created.

- 5) When you have created volume, you must specify the DESTINATION of your copying. The destination is the space (volume) you just created on your diskette. You must also specify the SOURCE of the copying, i.e. the file or files you wish to copy. Type the instructions as shown:

```
Ba-sy: COPY-USER-FILES↵
      Destination type: VOLUME↵
      Destination volume name: ANNE↵
      Destination device name 'FLOPPY-DISK-1': ↵
      Destination unit number '0': ↵
      Destination file generation: ↵
      DEFAULT DESTINATION GENERATION: 1
      Source type: DIRECTORY↵
      Source directory name '': ↵
      Source user name 'ANNE': ↵
      Source file name: LETTER↵
      Manual selection: NO↵
```

If you do not specify a file, but simply press ↵, ALL your files will be copied. In the example here, all files whose names begin with LETTER (i.e. LETTER-1, LETTER-2 etc.) will be copied. To copy just one file, you must type THE WHOLE file name. (WAIT while the backup is taking place.)

- 6) When 'Ba-sy:' reappears, the backup copying is completed. You can now check that your file or files have been transferred to the diskette, by making a list of the files on the diskette. Type the instructions as shown:

```
Ba-sy: LIST-VOLUME↵
Device name 'FLOPPY-DISK-1': ↵
Device unit '0': ↵
File name '': ↵
Output file 'TERMINAL': ↵

VOLUME NAME: ANNE

OWNED BY: ANNE

FILE 1: (ANNE)LETTER-1:TEXT;1

.....
```

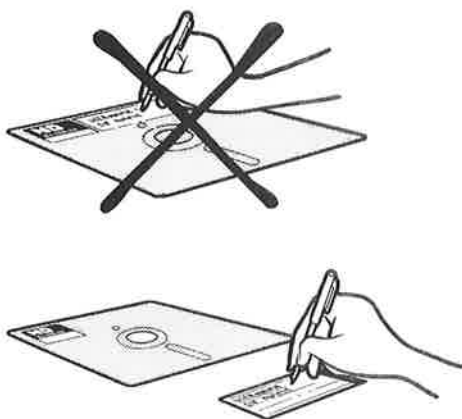
ESC

- 7) Press the ESC key.

```
Ba-sy: EXIT↵
```

- 8) Type EXIT to get your menu back.

## LABELLING THE DISKETTE



It is very important to mark the diskettes, to know what has been stored on them. Labels for this purpose are included in the diskette cartons.

### CAUTION

Write on the label BEFORE placing it on the diskette, otherwise the diskette might be damaged.

RECOVER - COPYING FROM A DISKETTE BACK TO A STORAGE DEVICE

- 1) Follow steps 1-3 on page 22-23.
- 2) In this example, all files whose names begin with LETTER will be copied back to disk. If you do not specify a source file name, but simply press ↵, ALL files on the floppy diskette will be copied back. Type the instructions as shown:

```

Ba-sy: COPY-USER-FILES↵
Destination type: DIRECTORY↵
Destination directory name '': ↵
Destination user name 'ANNE': ↵
Source type: VOLUME↵
Source volume name: ANNE↵
Source device name 'FLOPPY-DISK-1': ↵
Source device unit '0': ↵
Source file generation '': ↵
Source file name: LETTER↵
Manual selection: YES↵
FILE 1: (ANNE)LETTER-1:TEXT (YES/NO)
Indexed 1 page modified 85.01.01
.....

```

ESC

(WAIT while the copying takes place.)

```
Ba-sy: EXIT↵
```

- 3) Press the ESC key.
- 4) Type EXIT to get your menu back.

## CLEANING THE FLOPPY DRIVE

---

The floppy drive should be cleaned at least once a month. Use the PERFECT DATA Head Cleaning Kit, and follow the instructions given on the envelope of the cleaning diskette.

### NOTE

The floppy drive is dual sided; the perforated tab on the cleaning diskette must therefore be removed.

How to start the floppy drive while cleaning the head:

- 1) Log in on a terminal.
- 2) When you get the MAIN MENU, type @. You will then move to the line 'Task name:....'.
- 3) Type the instructions as shown:
- 4) You may get an ERROR message on the screen, but this is of no importance.
- 5) The cleaning is completed when the @ sign reappears. Press the EXIT key to get your menu back.

```
@CREATE-DIRECTORY↵
```

```
DIRECTORY NAME: ↵
```

```
DEVICE NAME: FLOPPY-DRIVE↵
```

EXIT



---

## 5. TAKING SYSTEM BACKUP

---

(SYSTEM SUPERVISOR)

---

### GENERAL INFORMATION ABOUT THE STREAMER BACKUP PROGRAM

---

The streamer backup program copies all data on the disk to the streamer tape, starting from page zero on the disk. The number of pages copied is:

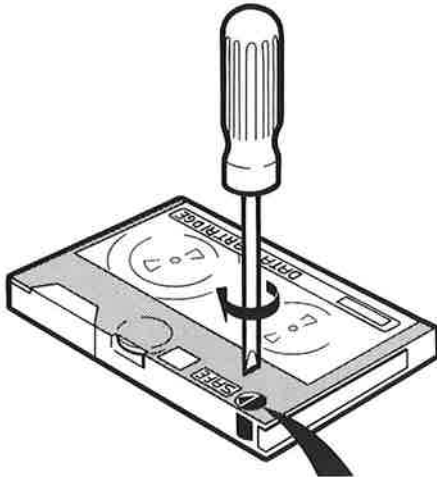
74 MB disk	37,888 decimal pages
45 MB disk	22,040 decimal pages
23 MB disk	11,776 decimal pages
16 MB disk	8,194 decimal pages

The first block of the tape gives information about the backup date, which disk unit the backup was taken from, and the number of pages. You will also get CPU information.

---

### PROTECTING THE TAPE CARTRIDGE FROM ACCIDENTAL ERASURE

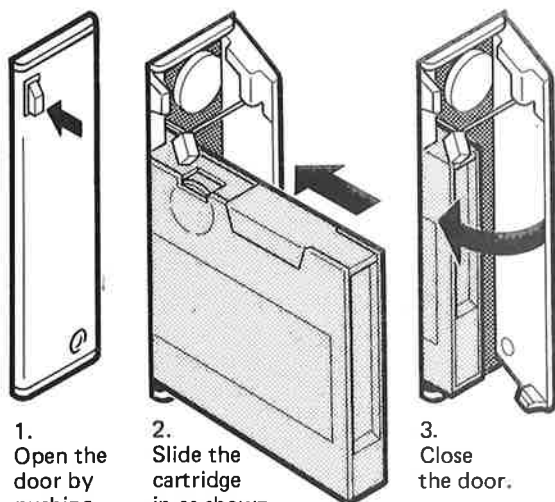
---



Writing prohibited

You can protect existing data on a cartridge from accidental over-write by turning the write protect to the SAFE position. This switch prohibits writing on any track.

## BACKUP COPYING TO STREAMER TAPE



1. Open the door by pushing the knob.

2. Slide the cartridge in as shown until it stops.

3. Close the door.

1) Insert the tape cartridge as shown. Remember that one backup takes one cartridge.

2) Insert the diskette marked DIR-BACKUP or UTILITY.

3) Log in on the console terminal, under the user name SYSTEM.

4) Before stopping the system, which you must do before taking backup, make sure that the computer is not being used by anyone. To do this, give the SINTRAN command WHO-IS-ON (on how to use SINTRAN commands in USER ENVIRONMENT, see page 14).

5) This is an example showing the type of information this command will give you. In this case, you must ask the two users KATE and BOB to log out before you stop the system.

6) When all users have logged out, proceed as follows:

```
@WHO-IS-ON↵
```

```
====>      1      SYSTEM
            5      KATE
            8      BOB
```

### NOTE

After STOP-SYSTEM, everything you type must be in UPPERCASE.

```
@STOP-SYSTEM↵;
```

```
£MACL↵
```

```
££1560£ (Do NOT press ↵)
```

(WAIT for a few seconds)

```
=====
=          Directory backup for          =
=          Winchester-disk and Streamer  =
=          Started : Date/Month-Year   hh:mm:ss =
=====
```

```
Program number : xxxxxxx-x
Program name   : Dir-Backup-X
Issued        : MONTH date, year
```

The command HELP gives you a list of the commands.

## NOTE

The copying will take 22-25 minutes for a 45 MB disk.

```
>BACKUP↵
BACKUP

TO
STREAMER system (1-2 (Dec.)): ↵↵
Unit.....(0-3 (Dec.)): ↵↵

FROM
DISK-NAME.....: ↵↵
Unit.....(0-3 (Oct.)): ↵↵

== hh:mm:ss Initialize disk and streamer ==
== hh:mm:ss Copy from disk TO STREAMER ==
=====> Current page: XXXX

== hh:mm:ss Copy finished ==
== hh:mm:ss Compare disk and streamer ==
=====> Current page: XXXX

== hh:mm:ss Compare finished ==

>RESTART-SINTRAN↵
Give Main device

DISK-NAME.....: ↵↵
Unit.....(0-3 (Oct.)): ↵↵
```



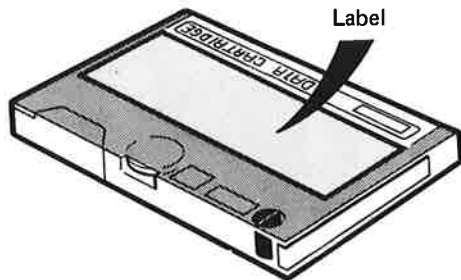
Backup takes time

(WAIT for a few seconds, while SINTRAN is restarted. Then LOG IN again.)

## LABELLING THE TAPE CARTRIDGE

---

It is very important to label the cartridge to know what has been stored on it. Always write the date and the name of the disk unit from which the backup was taken.



### NOTE

DO NOT fasten the label to the metal plate on the back of the cartridge. The thickness of the label will be sufficient to bring the cartridge out of its correct position, so that the tape will be positioned incorrectly with respect to the read/write heads.

## RECOVER - COPYING FROM STREAMER TAPE TO A STORAGE DEVICE

---

Follow steps 1-5 on page 29. Then proceed as follows:

### CAUTION

When you use the RECOVER command, ALL of the present disk contents will be erased, and there is no protection mechanism against this.

>RECOVER↵

RECOVER

TO

DISK-NAME.....: ↵↵

Unit.....(0-3 (Dec.)): ↵↵

FROM

STREAMER system (1-2 (Oct.)): ↵↵

Unit.....(0-3 (Dec.)): ↵↵

== hh:mm:ss Initialize disk and streamer ==

==BAC08=> This backup is recorded Date/Month-Year hh:mm

=====> From DISK-45MB-1

== hh:mm:ss Copy TO DISK from streamer ==

=====> Current page: XXXX

== hh:mm:ss Copy finished ==

== hh:mm:ss Compare disk and streamer ==

=====> Current page: XXXX

== hh:mm:ss Compare finished ==

>RESTART-SINTRAN↵

Give Main device

DISK-NAME.....: ↵↵

Unit.....(0-3 (Oct.)): ↵↵

(WAIT for a few seconds, while  
SINTRAN is restarted. Then LOG IN  
again.)

## CLEANING THE READ/WRITE HEADS

---

### WHEN TO CLEAN:



Do you need a 'cleaning'?

If backup is taken daily, you must clean the read/write heads once a week. If backup is taken weekly, you must clean the heads once a month.

If there are any rewrites, rereads, overruns or underruns during copying, a message will appear on the screen afterwards, giving you the number of such occurrences. If the number of rewrites increases dramatically from copy to copy, the read/write head may need cleaning.

### WHAT TO USE:

To clean the heads, you can use Tandberg Data's 7566 Kit TDC Cleaning Cartridge. Follow the instructions that is implemented in the kit.

## SYSTEM BACKUP ON FLOPPY DISKETTES

If your computer is not equipped with a streamer, you must take system backup on floppy diskettes.

- 1) Log in as SYSTEM.
- 2) On the main menu, choose 4 (User Area Maintenance). You get the following submenu:

4

M A I N M E N U	
Date:1985-2-16	Time:12:18:35
User:YOUR NAME	Current user area:YOUR-USER-NAME
1 Office Automati	User Area Maintance
2 Program Develop	1 Personal Backup
3 Remote Systems	2 Change User Area
4 User Area Maint	3 User and Terminal Profiles
5 System Maintena	

1

- 3) On the submenu, choose 1 (Personal Backup). You get "Ba-sy:" on the VDU.
- 4) Before taking backup, you must CREATE VOLUME, i.e. reserve space on the floppy diskette, and give this space a name. You can, for example, use the date when the backup is taken. The maximum number of letters is six. Type the instructions as shown:

```
Ba-sy: CREATE-VOLUME↵
Volume name: OCT.11↵
Device name 'FLOPPY-DISK-1': ↵
DEVICE UNIT '0': ↵
```

You will probably want to limit your backup to those files which have been modified since the last backup (taking backup of ALL files will require a lot of floppy diskettes).

- 5) You must therefore create a LOG FILE to keep track of the files that have been modified. You do this by typing "BACKUP-LOG:LOG" as shown (instead of BACKUP-LOG you can use another name of your choice). The double quotes (" - ") should only be used the FIRST time you take backup i.e. when the file is created. Later, they must be left out (but otherwise the procedure is the same). Type the instructions as shown:

```
Ba-sy: SERVICE-PROGRAM-CUF↵
Cuf-serv: MASTER-LOG-MODE↵
Master log file ': "BACKUP-LOG:LOG"↵
Append access? 'YES': ↵
Cuf-serv: EXIT↵
```

- 6) You now define the DESTINATION of your backup (the volume you just created), and the SOURCE (i.e. the disk PACK-ONE) in the computer. You must decide which files to copy, and which to leave. To help you decide, you can ask the computer for a list of the criteria for file selection. Different criteria can be combined by using AND, OR, NOT and parantheses.

Let us assume you decide to copy all files that have been modified since the last backup, except some large data files (e.g. the SINTRAN file). The selection shown on page 36 is a good example, and you can copy it directly if you like. Remember to type EXECUTE when you have finished your selection.



Ba-sy: MULTIUSER-COPY↵

Destination type: VOLUME↵

Destination volume name: OCT.11↵

Destination device name 'FLOPPY-DISK-1': ↵

Destination unit number '0': ↵

Destination file generation: ↵

DEFAULT DESTINATION GENERATION: 1

Source type: DIRECTORY↵

Source directory name: PACK-ONE↵

Source user name '': ↵

Manual check 'LIST': ↵

Manual selection: S↵

Selection: HELP↵

Command name: ↵

Selection: MODIFIED-SINCE-LAST-BACKUP↵

Selection: AND NOT F-N (SYS)SINTRAN:DATA↵

Selection: AND NOT F-N (SYS)MACM-AREA:DATA↵

Selection: AND NOT F-N (SYS)SEGFILO:DAT↵

Selection: AND NOT F-N :OUT↵

Selection: AND NOT F-N :BRF↵

Selection: AND NOT F-N (SCRATCH)↵

Selection: AND NOT F-A SPOOLING↵

Selection: AND NOT F-A PERIPHERAL↵

Selection: AND NOT F-A TERMINAL↵

Selection: EXECUTE↵

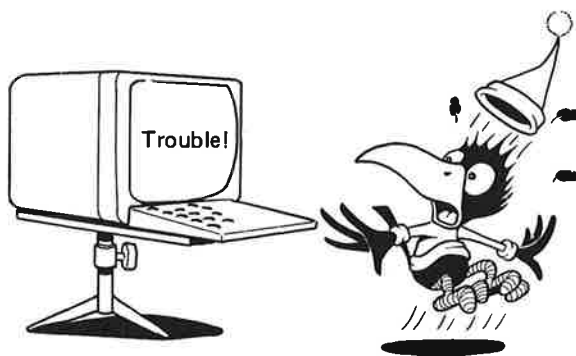
VOLUME IS NOW PRODUCED IN MODE: BACKUP SYSTEM

USER NAME: SYSTEM

- 7) The backup is now taking place. When the diskette is full, the computer will ask for a new one. Simply remove the old diskette, insert the new one and continue the backup. You do not have to create volume on the new diskette in advance.

## IF YOU RUN INTO TROUBLE

---

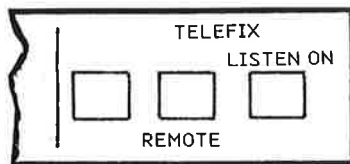


- Have you remembered to create volume (page 34)?
- Do you have a 'clean' diskette? If not, you can erase it as explained on page 21.
- Have you checked that your diskette is not write protected (page 20)?
- If you get stuck, you can always 'get out' by pressing the ESC key the required number of times.

Every 5th to 10th time you take backup, you should take a COMPLETE backup, to avoid producing long chains of selected backups. You do this by leaving out the selection MODIFIED-SINCE-LAST-BACKUP from the example above. The first time you take a regular backup again, after taking a complete backup, you must erase the log file by answering NO to the question 'Append access'. See page 35.

**6. ERROR SITUATIONS****(SYSTEM SUPERVISOR)****HOW TO USE TELEFIX**

Telefix is a system which permits analysis of error situations in your computer directly from Norsk Data's Service Center.



To activate Telefix, set the key switch to ON and press the two rightmost keys on the operator panel (to the left of the key switch), so that the panel looks like the illustration (REMOTE and LISTEN ON).

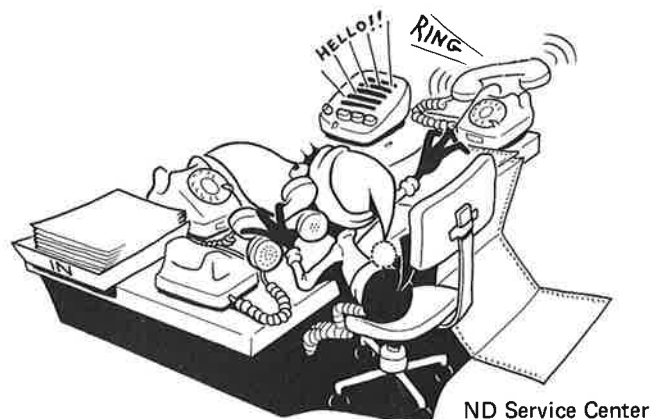
**NOTE**

To be able to use the TELEFIX, you must:

Set the thumbwheel switch for "Speed Setting for Console Terminal" to position 15.

Set the switch "SW" (ST1) on the Panel Control PCB (ND-1634) to the REMOTE position.

Now you can communicate with the ND Service Center from your console terminal.



## ERROR MESSAGES GIVEN DURING STREAMER BACKUP

---

The format of the message is shown on the left, in which x and y are numbers. The number x has the following significance:

<pre> ==BACxy=&gt; (text giving the message) =====&gt; (additional explanatory            text) </pre>	<pre> 0: Message to inform    (no error). 3: Error message    (information on the    status that caused    the error). 4: System error (fatal    error - the system    was unable to perform    the operation). 5: Operator break. </pre>
<pre> ==BAC00=&gt; Current disk page :           xxxxxx - yyyyyy </pre>	<p>Tells you where the program was operating on the disk when the error occurred. xx and yy are octal numbers.</p>
<pre> ==BAC00=&gt; Pages compared to disk :           xxxxxx </pre>	<p>Page counter, telling you how many pages have been compared to the disk.</p>
<pre> ==BAC01=&gt; Current streamer page :           xxxxxx - yyyyyy </pre>	<p>Tells you where the program was operating on the streamer when the error occurred.</p>
<pre> ==BAC01=&gt; Pages copied to disk :           xxxxxx </pre>	<p>Page counter, telling you how many pages have been copied to the disk.</p>
<pre> ==BAC02=&gt; Pages copied to streamer :           xxxxxx </pre>	<p>Page counter, telling you how many pages have been copied to the streamer.</p>
<pre> ==BAC06=&gt; There have been x blocks           rewritten on tape </pre>	<p>Number of rewrites or rereads during backup or recover. x is a decimal number. A rapidly increasing number of rewrites indicates that the read/write heads should be cleaned or that the tape is in bad condition.</p>
<pre> ==BAC06=&gt; There have been x blocks           reread on tape </pre>	<p>Number of rewrites or rereads during backup or recover. x is a decimal number. A rapidly increasing number of rewrites indicates that the read/write heads should be cleaned or that the tape is in bad condition.</p>

==BAC07=> There have been x underruns on streamer drive	Number of underruns or overruns during backup, recover or compare. x is a decimal number.
==BAC07=> There have been x overruns on streamer drive	
==BAC32=> COMPARE ERROR =====> Page : xxxxxx xxxxxx	The copy you have taken is not identical with the original. Try again.
==SIN40=> SINTRAN ERROR =====> SINTRAN error message	SINTRAN error message. See SINTRAN manual.
==BAC40=> FATAL ERROR, operation ABORTED. Time hh:mm:ss	The operation in progress cannot be completed.
=====>Bad cartridge	Clean the read/write heads or change the cartridge.
=====>No cartridge installed	Insert a cartridge.
=====>End-of-medium, Cartridge full	Insert another cartridge.
=====>Write protected cartridge	The cartridge is protected against recording (see page 28). Insert another.



Finding a way out of the trouble

## OTHER ERROR MESSAGES

---

AMBIGUOUS USER NAME	You abbreviated too much. Try again.
AMBIGUOUS DOCUMENT NAME	You abbreviated too much. Try again.
DOCUMENT/DEVICE IN USE BY SOMEONE	Try again later.
NO MORE AVAILABLE SPACE FOR THIS USER	You have used all your storage space in the computer. See your system supervisor immediately. Do not log out, or you will lose part of your work.
NO SUCH FILE NAME	Wrong name given, perhaps a typing error. Check the name and try again.
NO SUCH USER NAME	Wrong name given, perhaps a typing error. Check the name and try again.
PRINTING ABORTED AFTER SHEET NUMBER 'n'	The message is given if \ is pressed before all the requested text has been printed.
SEARCH ABORTED AT LINE NUMBER 'n'	This occurs if a search is interrupted by the \ key before the whole search area has been searched.
"XX" IS NO PRINTER	When you used the PRINT key, you gave a device name which does not exist.
YOU DO NOT HAVE READ ACCESS TO THIS DOCUMENT	You are not allowed access to this file.
YOU DO NOT HAVE STORE ACCESS TO THIS DOCUMENT	You tried to store text in a file protected against unauthorized use.
YOU DO NOT HAVE STORE APPEND ACCESS	Same as above.

7. APPENDIX

(THE USER ENVIRONMENT MENUS)

THE MAIN MENU

M A I N M E N U	
Date:1985-2-16	Time:12:18:35
User:YOUR NAME	Current user area:YOUR-USER-NAME
<p>1 Office Automation</p> <p>2 Program Development</p> <p>3 Remote Systems</p> <p>4 User Area Maintenance</p> <p>5 System Maintenance</p> <p style="text-align: center;">Task name:.....</p>	

SUBMENU 1

This menu selection leads you to the tools needed for office functions.

M A I N M E N U																					
Date:1985-2-16	Time:12:18:35																				
User:YOUR NAME	Current user area:YOUR-USER-NAME																				
<p>1 Office Automati</p> <p>2 Program Develop</p> <p>3 Remote Systems</p> <p>4 User Area Maint</p> <p>5 System Maintena</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; border-bottom: 1px solid black;">Office Automation</td> </tr> <tr> <td style="padding: 2px;">1 Word Processing and TELEX</td> <td style="text-align: right; padding: 2px;">NOTIS-WP</td> </tr> <tr> <td style="padding: 2px;">2 Document Storage</td> <td style="text-align: right; padding: 2px;">NOTIS-DS</td> </tr> <tr> <td style="padding: 2px;">3 Spreadsheet</td> <td style="text-align: right; padding: 2px;">NOTIS-CALC</td> </tr> <tr> <td style="padding: 2px;">4 Queries</td> <td style="text-align: right; padding: 2px;">ACCESS</td> </tr> <tr> <td style="padding: 2px;">5 Report Generator (Make reports)</td> <td style="text-align: right; padding: 2px;">NOTIS-RG</td> </tr> <tr> <td style="padding: 2px;">6 Report Processor (Run reports)</td> <td style="text-align: right; padding: 2px;">NOTIS-RP</td> </tr> <tr> <td style="padding: 2px;">7 Information Retrieval</td> <td style="text-align: right; padding: 2px;">NOTIS-IR</td> </tr> <tr> <td style="padding: 2px;">8 Mail system</td> <td style="text-align: right; padding: 2px;">NOTIS-ID</td> </tr> <tr> <td style="padding: 2px;">9 Business Graphics</td> <td style="text-align: right; padding: 2px;">NOTIS-BG</td> </tr> </table>	Office Automation		1 Word Processing and TELEX	NOTIS-WP	2 Document Storage	NOTIS-DS	3 Spreadsheet	NOTIS-CALC	4 Queries	ACCESS	5 Report Generator (Make reports)	NOTIS-RG	6 Report Processor (Run reports)	NOTIS-RP	7 Information Retrieval	NOTIS-IR	8 Mail system	NOTIS-ID	9 Business Graphics	NOTIS-BG
Office Automation																					
1 Word Processing and TELEX	NOTIS-WP																				
2 Document Storage	NOTIS-DS																				
3 Spreadsheet	NOTIS-CALC																				
4 Queries	ACCESS																				
5 Report Generator (Make reports)	NOTIS-RG																				
6 Report Processor (Run reports)	NOTIS-RP																				
7 Information Retrieval	NOTIS-IR																				
8 Mail system	NOTIS-ID																				
9 Business Graphics	NOTIS-BG																				

## SUBMENU 2

This menu selection leads you to the tools needed for administrative data processing.

— M A I N M E N U —		
Date:1985-2-16		Time:12:18:35
User:YOUR NAME		Current user area:YOUR-USER-NAME
	Program Development	
1 Office Automati		
2 Program Develop	1 Program Editor	PED
3 Remote Systems	2 Application Development	UNIQUE
4 User Area Maint	3 Queries	ACCESS
5 System Maintena	4 Report Generator	NOTIS-RG
	5 Application Generator	ABM
	6 SIBAS Maintenance	SIB-Server
	7 Document Storage	NOTIS-DS

## SUBMENU 3

This menu selection leads you to the tools needed for getting in connection with other computer systems.

— M A I N M E N U —		
Date:1985-2-16		Time:12:18:35
User:YOUR NAME		Current user area:YOUR-USER-NAME
	Remote Systems	
1 Office Automati		
2 Program Develop	1 Connect to ND Systems	
3 Remote Systems	2 Connect to other Systems	
4 User Area Maint	3 Transfer files	
5 System Maintena	4 Remote Spooling	



## SUBMENU 4

This menu selection leads you to the tools needed for the various maintenance tasks in the user area in the computer.

M A I N M E N U		
Date:1985-2-16		Time:12:18:35
User:YOUR NAME		Current user area:YOUR-USER-NAME
1 Office Automati	User Area Maintance	
2 Program Develop	1 Personal Backup	
3 Remote Systems	2 Change User Area	
4 User Area Maint	3 User and Terminal Profiles	Profile Manager
5 System Maintena		

## SUBMENU 5

This menu selection leads you to the tools needed for system maintenance functions.

M A I N M E N U		
Date:1985-2-16		Time:12:18:35
User:YOUR NAME		Current user area:YOUR-USER-NAME
1 Office Automati	System Maintenance	
2 Program Develop	1 User Environment Functions	
3 Remote Systems	2 System Backup	
4 User Area Maint	3 File Maintenance	File Manager
5 System Maintena	4 Document Storage	NOTIS-DS

---

## 8. TERMINOLOGY

---

Backup	A copy of one or more data files on a floppy diskette or streamer tape, which is stored in case the original gets lost.
Bit	The smallest available unit of information. A bit can have only one of two values: 0 or 1.
Buffer	Temporary storage used to balance different operating speeds of devices.
Byte	A group of bits. In ND computers a byte is always eight bits.
Command	An order you give to the computer.
Console terminal	Terminal 1, connected directly to the CPU in the computer. Communication and fault-finding are usually carried out on the console terminal.
CPU	Central Processing Unit. It stores programs and data, and controls the computer's interpretation and execution of instructions.
CRT	Cathode Ray Tube (same as VDU).
Default	The parameter chosen by the computer if you yourself do not specify one, i.e. if you press the carriage return key instead of typing a parameter. See PARAMETER.
Directory	A set of files.
Disk	See Fixed disk.
Diskette	See Floppy diskette.

File	Files are what you use for storing data. They are like labeled drawers in a cabinet. You put your data in one of them, give it a FILE NAME, and later you can get it out again when you want to see it or make some changes to it. Files can exist on floppy diskettes, and on the fixed disk. A group of files is called a DIRECTORY, and is given a DIRECTORY NAME.
Fixed disk	A hard magnetic plate used for data storage. The disk forms a part of the computer's memory.
Floppy drive	The part of the computer where you insert the floppy diskette to record data from (or transfer data to) the computer's disk.
Floppy diskette	A round magnetic plate used for storing data.
Formatting	Preparing a floppy diskette for storing data. The data which was previously on the floppy diskette is destroyed.
Interface	A shared boundary between two units. It is often used as an adaptation device which makes it possible to link two different units together.
Load into	Transferring something (e.g. a program) into the computer's memory.
Log in	The procedure you follow in order to start a dialog with the computer.
MB (Mbyte)	Megabyte = 1048576 bytes (1 million bytes).
Operating system	A program controlling the execution of other programs or commands in the computer. It enables several users to communicate with the computer at the same time. In ND computers, the operating system is called SINTRAN III.

Operator	A person who operates the computer and other units in the computer system.
Overrun	During copying from the streamer tape, the interface is not able to accept data at the rate at which it is transmitted from the streamer. This results in a full buffer, and the streamer may be stopped and then started again.
Page	Files are divided into pages, usually consisting of 1024 words each.
Parameter	Additional information that you put into a command given to the computer. EXAMPLE: If you tell the computer to copy from disk to streamer, you must specify which disk to copy from. The disk name will then be the parameter. See DEFAULT.
Password	A set of characters used for identification when communicating with the computer. It prevents other users from logging in under your user name.
Personal backup	Copying your own data files onto a floppy diskette (as opposed to SYSTEM backup, which means copying ALL files).
Release	To 'get out' of a computer program or system, to make it available for somebody else.
Reread	This happens if the system was unable to recover a block of data from the streamer tape. The tape motion is stopped, and the tape is rewound before the block of data is read once more.
Rewrite	Occurs if the streamer was unable to write a block of data successfully. The write attempt is then repeated.
SINTRAN	See Operating system.

Streamer	A tape recorder built into the computer and used for storing data.
Streamer tape	The tape cartridge used in the streamer.
System supervisor	The person who is responsible for the daily operation of the system.
Telefix	Permits analysis of error situations in the customer computers directly from Norsk Data's Service Center.
Terminal	What you use to communicate with the computer.
Terminal 1	See Console terminal.
Underrun	Whilst writing to the streamer tape, the interface is unable to transmit data at a rate that is fast enough for the streamer. The streamer may be stopped and started again when there is more data available.
User	Yourself, and anybody else who uses a computer terminal.
User area	A registered area on the fixed disk where the computer stores your files. This area is reserved for you.
User name	A registered name by which the computer identifies you.
SYSTEM backup	Copying all data files onto a streamer tape or floppy diskettes. (as opposed to PERSONAL backup, which means copying YOUR OWN files only).
VDU	Visual Display Unit. Part of the terminal.

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