Cat. No. V006-E1-1

NT10S
Support Tool

OPERATION MANUAL

OMRON

NT10S Support Tool

Operation Manual

Produced May 1992

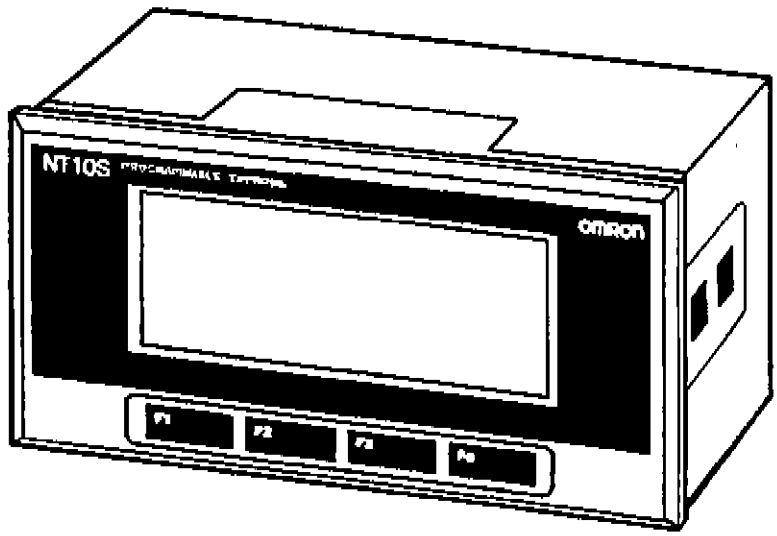


TABLE OF CONTENTS

About this Manual:

This manual describes the installation and operation of the NT10S Support Tool and includes the sections described below. This manual is intended to be used together with the *NT10S Programmable Terminal Operation Manual.*

Please read this and the PT's manual completely and be sure you understand the information provide before attempting to install and operation the Support Tool or the PT.

Section 1 introduces the Support Tool and outlines how to install, start, and stop it.

Section 2 describes how to connect the computer running the Support Tool to peripheral devices.

Section 3 describes basic operational procedures and outlines the procedure used to create screens.

Section 4 describes the environmental settings used to control Support Tool operations and communications with peripheral devices.

Section 5 describes the file selection display and the operations that can be used while it is displayed.

Section 6 describes the screen selection display and the operations that can be used while it is displayed, including creating marks.

Section 7 describes how to create new or modify existing screens.

SECTION 1
Outline

This section introduces the Support Tool and outlines how to install, start, and stop it. Refer to following sections for details.

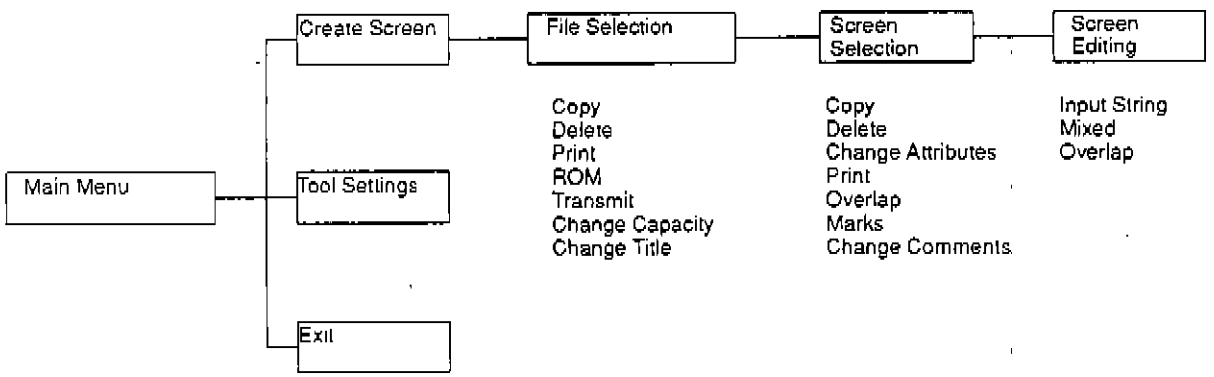
1-1 System Configuration

The NT10S Support Tool is a software package for creating and maintaining display screens, overlap messages and custom characters called marks for the NT10S Programmable Terminal. For details, refer to *Section 6-5 Overlap Messages* and *Section 6-4 Creating Marks.*

Support Tool Operations

The Support Tool can be used to create and modify screens, overlap messages, and marks, and save resulting data as files. Data created on the Support Tool can be transmitted to the NT10S Programmable Terminal or to a PROM writer, and the Support Tool can also receive data from the NT10S Programmable Terminal or ROM writers.

Menu Configuration



For details, refer to *Section 5 File Selection Display Operations*, *Section 6 Screen Selection Display Operations*, and *Section 7 Creating Screens.*

Support Tool Specification

Model	NT10S-ZA3AT-EV1	NT10S-ZA5AT-EV1
System disk	3.5 inch	5 inch
Applicable computers	IBM PC/AT or compatibles	
Floppy disk drives	Two min. (at least 2DD) (see note 1)	
Graphic monitor	EGA- and VGA-corresponding	
Printer	Epson Dot Matrix or HP Laser Printer	
ROM writer (see note 2)	Commercially available ROM writer	

Note

1. We recommend the user to use two floppy disk drives (one for the support tool disk and the other for the data disk) for smooth operation though a single floppy disk drive can be used for both the support tool disk and data disk. If a hard disk is used, however, a single floppy disk drive suffices.
2. The following communications settings must be supported.
   Baud rate: 9,600 bps
   Stop bits: 1 bit
   Data length: 8 bits
   Parity: None
   Either one of the Intel Intellect 8/MDS (8 bits), Motorola Exorciser (SI), or ASCII binary format can be used.

1-2 Initial Preparations

Before using the Support Tool, you must first perform several preparatory operations such as creating a backup of the Support Tool system disk by copying the data on the system disk to a floppy disk or hard disk. (Use this backup system disk for usual operation).

Read the following instructions before creating a backup of the system disk. The instructions are based on MS-DOS Version 3.3. Use this or a later MS-DOS version. While performing the operations, check the contents of the disks by using the directory and other commands.

Using a Hard Disk

1, 2, 3...

1. Start up MS-DOS from the hard disk.
2. Insert the Support Tool system disk into the open disk drive (drive B in this case). Input "B: *enter*."

```
C>B:↵
```

3. Input "NTINSTAL C: *enter*."

```
B>NTINSTAL C:↵
```

4. The steps described above will start up the Support Tool Installation Utility Program which creates the directory "\NTS" under the root directory. It will take approximately one minute to create the sub-directory, during which the following will be displayed.

```
(C) OMRON Corporation 1992
All Rights Reserved

Programmable Terminal Supporting Tool
Installation Utility


This is a simple utility program for the software installation
or backup in any valid drive specified. A directory entitled
"NTS" will be created automatically.
```

5. The following will be displayed when the creation of the sub-directory is completed. The current directory will be C:\NTS.

```
SOFTWARE INSTALLATION COMPLETED !!!

To start the program, type "NTS"
```

6. Input "NTS *enter*" to activate the Support Tool (see note).

```
C:YNTS>NTS↵
```

For instructions on formatting the hard disk and installing MS-DOS, please refer to your MS-DOS manual.

Using Two Floppy Disk Drives

1, 2, 3...

1. Turn off the power to your computer.

   Insert the MS-DOS disk into disk drive A.

   Turn on the power. After a moment, the MS-DOS command menu will appear.

```
A>■
```

2. Insert the Support Tool system disk into disk drive A.
3. Insert a properly formatted disk into disk drive B.
4. Input "NTINSTAL B: *enter*."

```
A>NTINSTAL B:↵
```

5. The steps described above will start up the Support Tool Installation Utility Program which creates the directory "\NTS" under the route directory. It will take approximately one minute to create the sub-directory, during which the following will be displayed.

```
(C) OMRON Corporation 1992
All Rights Reserved

Programmable Terminal Supporting Tool
Installation Utility


This is a simple utility program for the software installation
or backup in any valid drive specified. A directory entitled
"NTS" will be created automatically.
```

6. The following will be displayed when the creation of the sub-directory is completed. The current directory will be B:\NTS.

```
SOFTWARE INSTALLATION COMPLETED !!!

To start the program, type "NTS"
```

7. Input "NTS *enter*" to activate the Support Tool (see note 1).

```
B:¥NTS>NTS
```

Note
1. After the initial installation, to activate the Support Tool go to the directory "\NTS" and input "NTS *enter*".
2. To start up the personal computer and operate support software using a single disk, copy the backup data onto the MS-DOS system disk.

1-3 Starting and Exiting

The method for selecting items on the menu is the same as that for other menus.

1-3-1 Startup Procedure

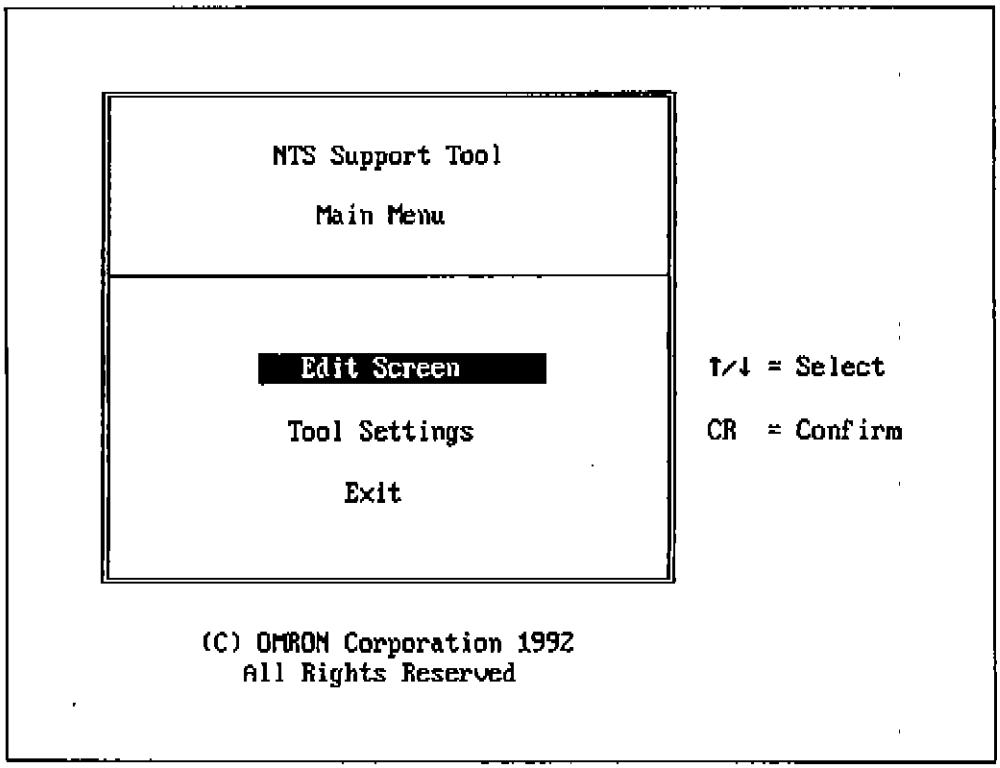
Insert the startup disk into disk drive A, and the data disk into disk drive B. Then turn on the power. The Main Menu of the Support Tool will be displayed. For details, refer to *Section 1-2 Preparation Before Starting*.

When starting up the Support Tool from a disk, do not remove the startup disk while the Support Tool is operating. Doing so may result in damage to Support Tool programs.

When using a hard disk, first start up MS-DOS from the hard disk and then input NTS *enter*.

When the software has started, the Main Menu will appear.

Main Menu



1-3-2 Exiting

While the Main Menu is displayed, use the Up Key or the Down Key to move the bar cursor to Exit, and then press the Enter Key. The MS-DOS prompt will be displayed. At this point, remove the disks and turn off the power to the computer. Always be sure to follow this procedure when exiting the Support Tool.

1-4 Main Menu

When you start up the Support Tool, the Main Menu will be displayed and the following items will be available.

Main Menu Items

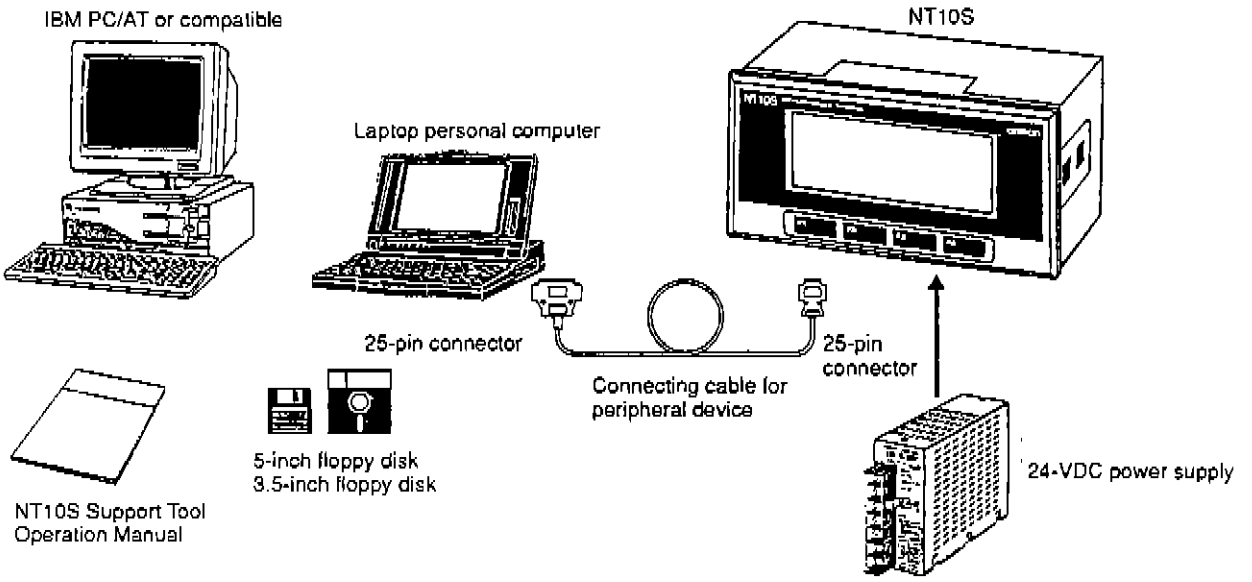
Item	Function	Details
Create Screen	When you select Create Screen from the Main Menu, you can manage files and manipulate and create screens.	Section 7
Tool Settings	With Tool Settings you set the memory capacity, specify the printer to be used, and make other settings. Perform this operation first. The values that you set here are saved in a file, so there is no need to reset them unless you want to make a change.	Section 4
Exit	Select Exit from the Main Menu when you want to exit the Support Tool. Be sure to follow this procedure for exiting when Support Tool operations are finished.	Section 1

SECTION 2
Peripheral Devices

This section describes how to connect the computer running the Support Tool to peripheral devices.

2-1 Connecting to the PT

To transfer data to the NT10S, connect the PT and your personal computer with RS-232C cable. For details on cables, refer to the *NT10S Operation Manual*.

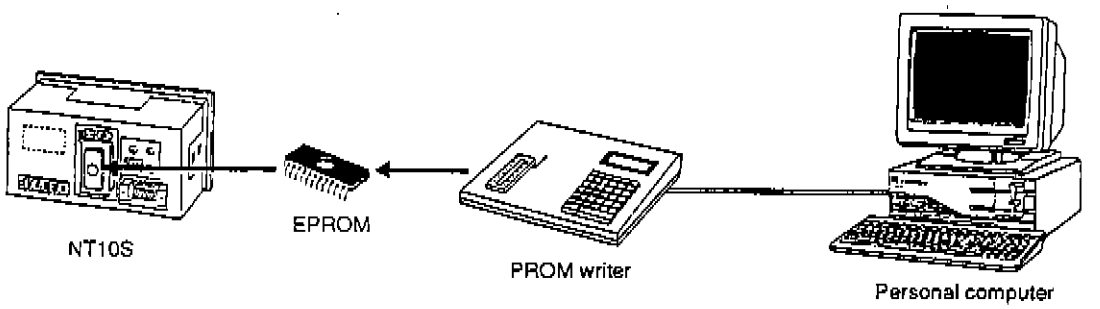


Before transmitting data, check to be sure that the PT is ready to receive it.

2-2 Connecting to a ROM Writer

To transfer data between your personal computer and a ROM writer, connect the computer and the ROM writer via an RS-232C. Make the settings shown in the table below.

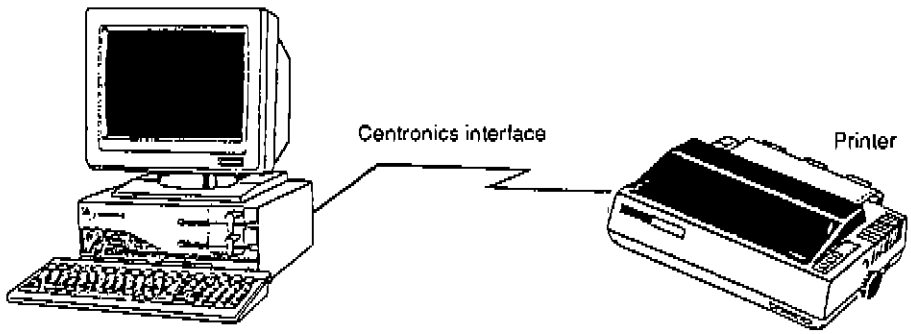
Baud rate	9,600 bps
Data length	8 bits
Parity	None
Stop bits	1 bit
Transfer format	INTEL Intellect 8/MDS (8 bits) Motorola Exorciser (S1) ASCII binary



Note
1. Data cannot be successfully transferred if the buffer RAM capacity of the ROM writer is smaller than the capacity of the ROM installed in the PT.
2. Before transmitting data, check to be sure that the ROM writer is ready to receive it.
3. When transferring the x-parameter control data in ASCII binary format at the numbered site can not be done.

2-3 Connecting to a Printer

To print from the Support Tool, connect your personal computer to either of the two printers compatible with the NT10S Support Tool: Epson Dot Matrix or HP Laser Printer.



Note
1. Before sending data to the printer, be sure that the printer is ready to print.
2. If printing is begun with the power on to the printer and the SEL switch off, a printer error message will be displayed. If this occurs, hit any key to return to the Screen Selection Display, and then go through the whole procedure again from the beginning.
3. The paper size must be A4.

SECTION 3
Basic Operation

This section describes basic operational procedures and outlines the procedure used to create screens.

3-1 Key Inputs

Inputting Strings

When inputting character strings such as file names and titles, you can use the Left, Right, Backspace, Delete, Insert, and Escape Keys. The functions of these keys are described below.

Left:	Moves the cursor to the left.
Right:	Moves the cursor to the right.
Backspace:	Deletes one character to the left of the cursor.
Delete:	Deletes one character at the cursor.
Insert:	Switches between insert mode and overwrite mode.
Escape:	Terminates character string input.

In insert mode, the vertical length of the cursor will be half as large as that of the text that you insert at the position of the cursor. Any text to the right of the cursor is moved to the right as the new text is inserted.

In overwrite mode, the vertical length of the cursor will be the same as that of the text that you input. The text overwrites any existing text at the cursor position.

Inputting Numerals

Inputting numerals is basically the same as inputting character strings, except that the Insert Key keeps the mode in overwrite and prevents it from changing to insert mode. In addition, you can use the Home Key to change to 0 any numerals that have been input.

3-2 Basic Operational Flow

This section covers the basic operation of the NT10S Support Tool, from starting up the Support Tool to creating screens and transferring the data to the PT.

1, 2, 3...

1. Startup

   Once an automatic startup disk has been created, you can start up the Support Tool by simply turning on the power to your personal computer. If MS-DOS is already running, then just input disk *enter*.

2. Tool Settings

   Use Tool Settings to set the memory capacity, specify the printer to be used, and make other environmental system settings. Perform this operation first. The values that you set here are saved in a file, so there is no need to reset them unless you want to make a change.

3. File Selection

   Select a file. If you wish to create a new file, then select "New File."

4. Overlap Message Creation

   Use the F5 Key on the Screen Selection Display to create overlap messages, if overlap messages are to be displayed on the screen.

5. Mark Creation

   Use the F10 Key on the Screen Selection Display to create marks to be displayed on the screen.

6. Screen Selection

   Select the screen number of the screen to be created or edited.

7. Create Screen

   a) Create a screen.
   The PT screen frame will be displayed.

   b) Input the characters.

   c) Specify the character size from among equal, wide, 4x, and 9x.

   d) Specify the overlapping screen number and display position.

   e) Specify the mixed screen number and display position.

   f) Select the screen display attribute from among normal, inverse, and blinking.

8. Printing

   You can print out and check screen data and overlap messages, and print cross-references

9. Screen Transfer

   Screen data can be transferred to an NT10S PT or to a ROM writer. When transferring data to a ROM writer, make the proper ROM writer settings. Before transferring the data, check to be sure that the PT or ROM writer is ready to receive it.

10. Exit

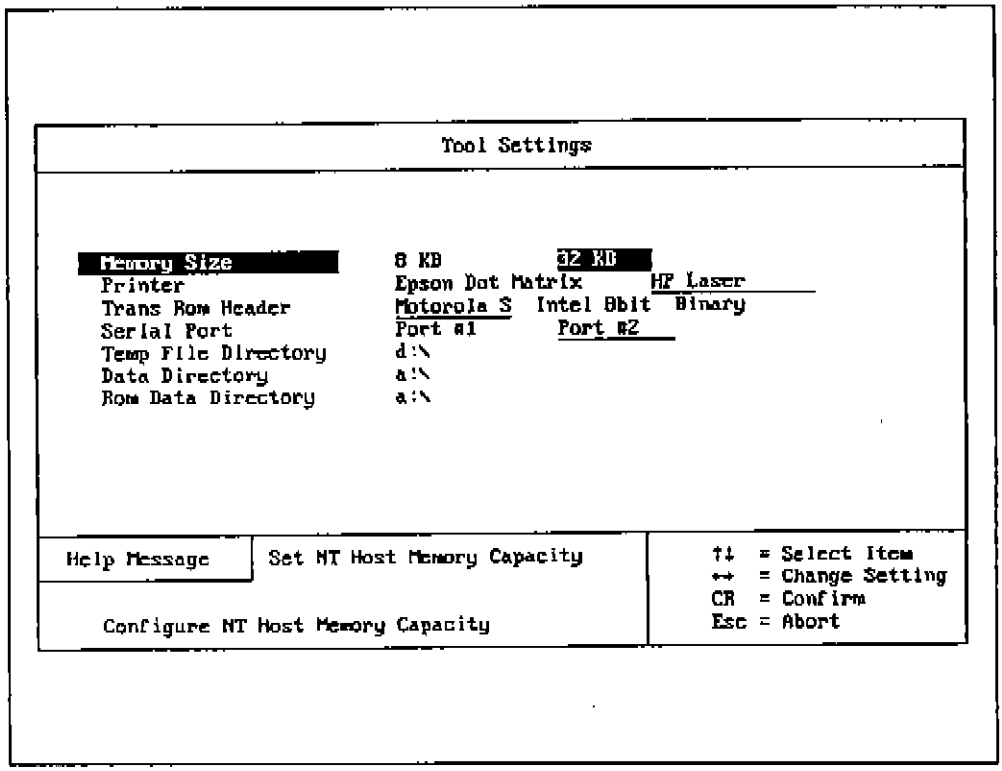
    To return to MS-DOS, select "Exit" from the Main Menu.

SECTION 4
Tool Settings

This section describes the environmental settings used to control Support Tool operations and communications with peripheral devices.

4-1 Tool Settings Display

Start up the Support Tool and select "Tool Settings" from the Main Menu. The Tool Settings Display will be displayed as shown below.



4-2 Contents of Tool Settings

Use Tool Settings to make the settings shown below.

Item	Content
Memory Size	Sets the memory capacity of the Programmable Terminal. The memory capacity must be set according to the ROM capacity of the destination where the data will be transferred.
Printer	Sets the printer model to be used.
ROM Writer Communications Format	Sets the format according to the ROM writer communications format.
RS-232C port	Sets the RS-232C port number (1 or 2) for data exchange with the ROM writer or NT10S.
Temporary Directory	Sets the directory for the work file that is to be temporarily used by the Support Tool.
Data Directory	Sets directory and drive names for saving screen data which is to be created.
ROM Data Directory	Sets directory and drive names for saving ROM data after the ASCII binary format is designated.

Press the Enter Key when you want to save the contents of the Tool Settings. Then either press the Enter Key again to return to the Main Menu, or press the Escape Key to return to the Tool Settings Display.

If you press the Space Key, the tool settings will be changed without being saved to a file, and you will be returned to the Main Menu.

Press the Escape Key to cancel tool setting changes.

ROM Data File

After data is created by the Support Tool, it is possible to convert the data into the format specified by the ROM that is mounted to the back of the NT10S. The formatted data can be stored as a binary data file called a ROM data file. No INTEL- or Motorola-formatted file can be stored as a data file.

Temporary File Name

The Support Tool will create a temporary work file when creating screens or transferring data to or from ROM. Most write operations are performed on this temporary file. To increase overall operating speed, this file should be created on your hard disk or in RAM.

Tool Settings File

Tool settings are saved in a file named NTSSET.ENV in the current directory (where NTS.EXE exists) for the Support Tool. If this file exists in the current directory when the Support Tool is started, the settings in the file will be read and used for operating the Support Tool. A tool settings file can thus be used to eliminate the need to make new settings each time the Support Tool is started.

SECTION 5
File Selection Display Operations

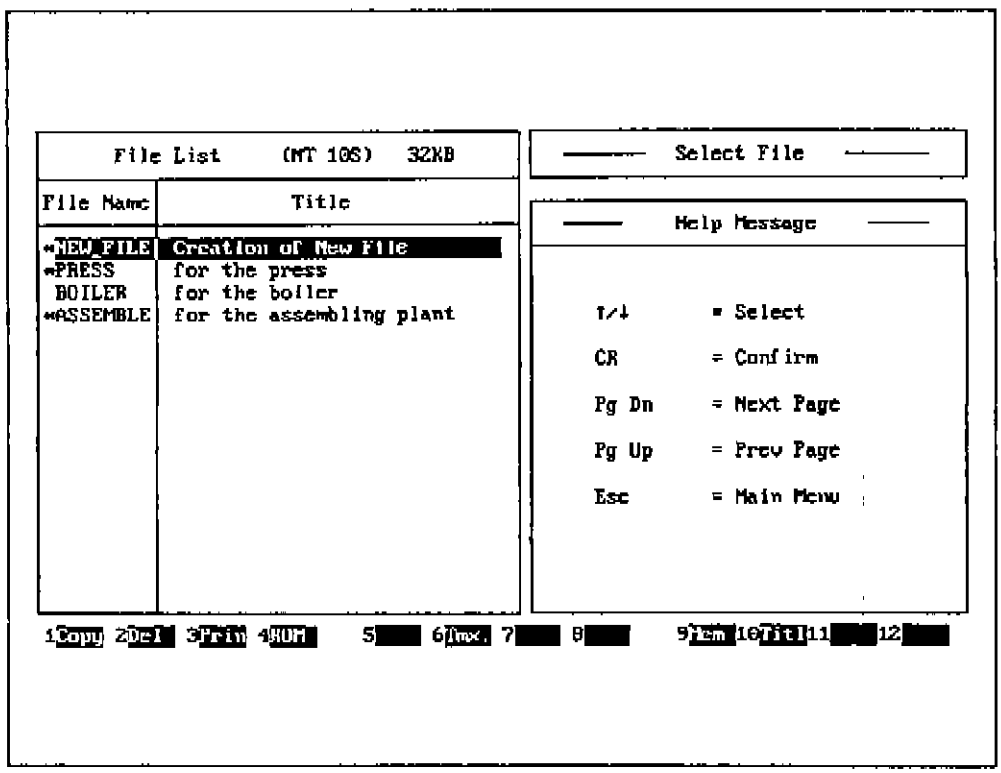
This section describes the file selection display and the operations that can be used while it is displayed.

5-1 File Selection Display

The File Selection Display appears when you select Create Screen from the Main Menu. Each file can contain screen data, overlap data, marks, or so on, for a maximum of 255 screens. When you want to create a new file, select NEW_FILE. The Screen Selection Display will then appear for you to make a selection from. If you want to modify a file that has already been created, select the file that you want to modify.

When you have finished creating screen data, input the name and title of the file. Note that the screen data save operation (disk access) should be executed right after the title has been input. No message will be displayed to remind you. The saving of the data will be complete at the point where are returned from the Screen Selection Display to the File Selection Display.

File Selection Display



5-2 File Selection

The maximum number of files that can be managed by the Support Tool is 254. Any files beyond this number cannot be accessed. If more files are required, use another data directory with Tool Settings. For details, refer to *Section 4 Tool Settings*.

All files are displayed on the File Selection Display. The files with memory capacity other than the one that has been set with Tool Settings are displayed only. The F4 (ROM) or F6 (transmit) function cannot be used with those files.

An asterisk is added to the names of files with the memory capacity set with Tool Settings.

The memory capacity of a file can be changed by means of the Memory Capacity function.

Note ROM data files may be edited without using the Support Tool, but in this case the reliability of the data files can not be guaranteed.

File Selection Operations

You can perform file operations by using the function keys while the File Selection Display is being displayed, as outlined in the following table.

Function Key	Name	Function
F1	Copy	Copies the contents of one file to another file.
F2	Delete	Completely deletes the contents of a file.
F3	Print	Prints screen data images, overlap data, and cross references (see note 1).
F4	ROM	Transmits data from the Support Tool to a ROM writer and receives data sent from a ROM writer to the Support Tool (see note 2). Creates a ROM data file to be saved on the disk that you designate (see note 3).
F6	Transmit	Transmits screen data from a Programmable Terminal. Data can be sent as files.
F9	Memory Capacity	Changes the memory capacity that can be used by a designated file to the memory capacity currently set in the Tool Settings.
F10	Title Change	Changes a file title that has previously been set.

Note

1. The overlap block numbers and mixed block numbers used on the screen will be printed as cross references. For details, refer to *Section 7-2 Screen Create Display* and to *Section 6-5 Overlap Messages*.
2. Data can be transmitted with verification. After transmission is complete, the Support Tool will display a message indicating that it is waiting to receive. Transmit from the ROM writer at this point.
3. Each ROM data file is in binary format regardless of the ROM writer communications format set by the Support Tool. The size of the data file is 8K bytes or 32K bytes designated by the memory capacity setting on the Support Tool. The data must coincide with the data of the ROM mounted on the back of the NT10S. This means that the data is not ASCII-coded and it has no location address, code number, and check sum, which are required at the time of usual transfer.

SECTION 6
Screen Selection Display Operations

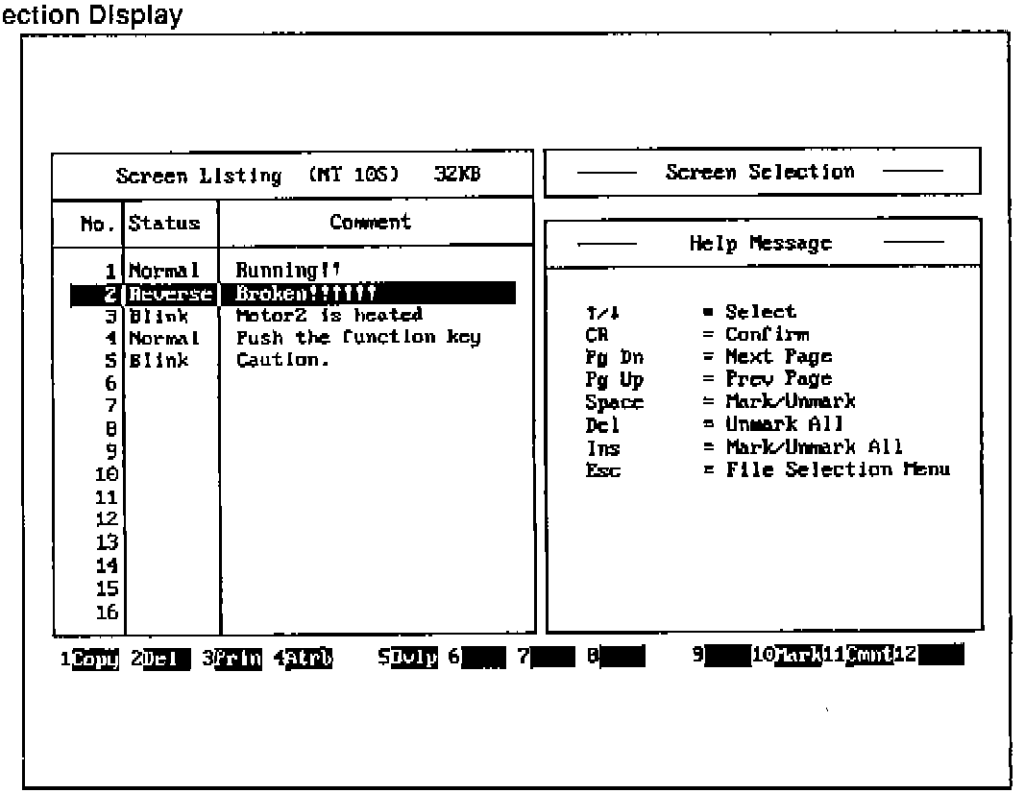
This section describes the screen selection display and the operations that can be used while it is displayed, including creating marks.

6-1 Screen Selection Display

When you select either NEW FILE or an existing file from the File Selection Display, the Screen Selection Display will appear. If you select an existing file, the Screen List for that file will be displayed.

Screens may be numbered from 1 to 255. To create a new screen, select a screen number for which nothing is displayed in the Status box in the Screen List. When either creating a new screen or modifying an existing one, input the comment when returning to the Screen Selection Display from the Screen Editing Display.

Screen Selection Display



6-2 Screen Selection

Screen Selection Operations You can perform screen operations by using the function keys while the Screen Selection Display is being displayed as described in the following table.

Function Key	Name	Function
F1	Copy	Copies previously created screen data to another screen.
F2	Delete	Deletes designated screen data. Can also be used to delete multiple screens at the same time.
F3	Print	Prints designated screen data. Can also be used to print multiple screens at the same time.
F4	Attribute Change	Sets display attributes .
F5	Overlaps	Edits overlap messages. Edits messages used for the overlap display function of the NT10S.
F10	Marks	Creates and modifies marks (refer to 6-4 Creating Marks).
F11 or Shift+F1	Comment Change	Changes designates screen comments (see note).

Note Comments of up to 24 characters can be written on each screen. Insert messages to facilitate screen control and management.

6-3 Tags

By using tags effectively, you can handle multiple screens as a single group. For example, to delete all but screens 1 to 3, follow the steps below.

1, 2, 3...

1. Clear all tags with the Delete Key.
2. Tag screens 1 to 3 using the Space Key. An asterisk is added before each of these screen numbers.
3. Reverse all tags with the Insert Key. Doing so attaches tags to all screens except screens 1 to 3.
4. Delete the tagged screens by pressing F2.

Handling Multiple Screens

Tags can be used to handle multiple screens simultaneously. For example, several screens can be deleted at the same time by tagging them and then executing Delete from the Screen Selection Display.

Use the following keys to attach or remove keys.

Space: Reverses (i.e., toggles) the tag of the screen with the bar cursor. If the screen has no tag, it attaches one; if the screen already has a tag, it removes it.

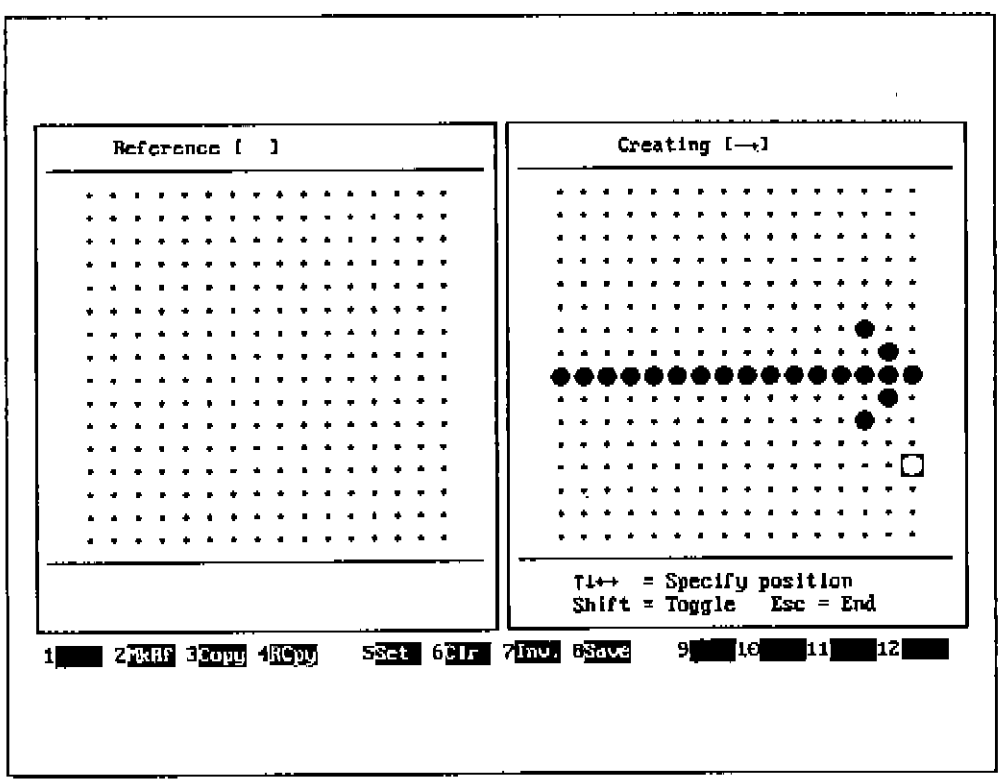
Delete: Clears all tags.

Insert: Reverses all tags.

6-4 Creating Marks

You can create custom characters (called marks) for use with the Programmable Terminal. If you press F10 (Mark) on the Screen Selection Display, the Mark Creation Display will appear. On the right side of the Mark Creation Display is the Creation Display, and on the left is the Reference Display. Use the Creation Display for creating new marks.

Mark Creation Display



When creating marks, use the function keys shown in the following table.

Function Key	Name	Function
F2	Mark Reference	Displays designated marks on the Reference Display.
F3	Copy	Copies a designated rectangular area on the Creation Display to another position.
F4	Reference Copy	Copies a designated rectangular area on the Reference Display to a designated position on the Creation Display.
F5	Area Set	Sets all of the dots for a designated rectangular area on the Creation Display.
F6	Area Clear	Clears all of the dots for a designated rectangular area on the Creation Display.
F7	Inverse	Reverses the status of all the dots on the Creation Display.
F8	Save	Registers, as a mark, data which is displayed on the Creation Display.

Setting and Clearing Dots

To set or clear dots, move the cursor with the direction keys, and then press the Shift Key. Pressing the Shift Key will clear previously-set dots and set previously-cleared dots at the cursor position. By operating the direction keys while continuing to hold down the Shift Key, you can set or clear a continuous series of dots. The results of setting or clearing dots are always displayed inside of brackets at the top of the Creation Display.

Keys Usable on Mark Creation Display

The direction keys are used to position the cursor. In addition, use them with the Shift Key to set or to clear a continuous series of dots or with the Control Key to move the Creation Display.

The Shift Key is used to set or clear dots one at a time.

The Control Key is used simultaneously with any of the direction keys to move the Creation Display in the designated direction. In addition, you can rotate the Creation Display 90° by simultaneously pressing the Control Key, the Shift Key, and the Left Key to rotate counterclockwise or the Right Key to rotate clockwise.

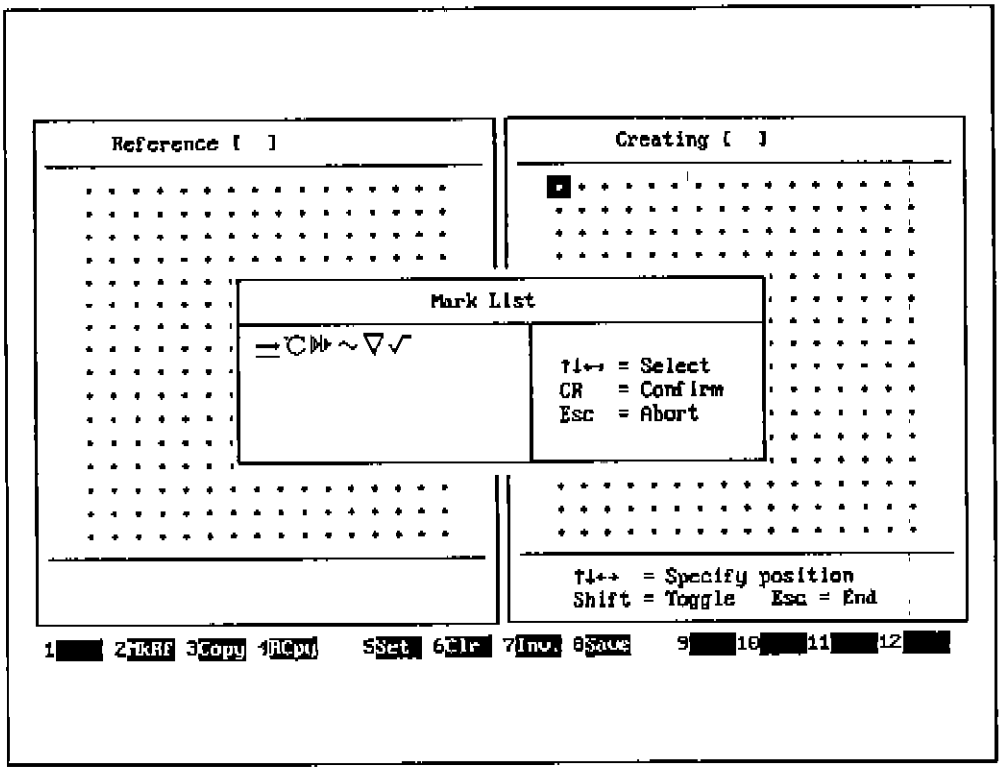
Use the Escape Key to end mark creation and return to the Screen Selection Display. When the Support Tool asks for confirmation, press the Return Key to end mark creation or the Escape Key to continue. Be sure to save required mark data before ending mark creation.

Reference Display

Designated marks are displayed on the Reference display by pressing F2. By designating and copying a mark on the Mark Display to the Creation Display, the mark can be corrected easily on the Mark Display.

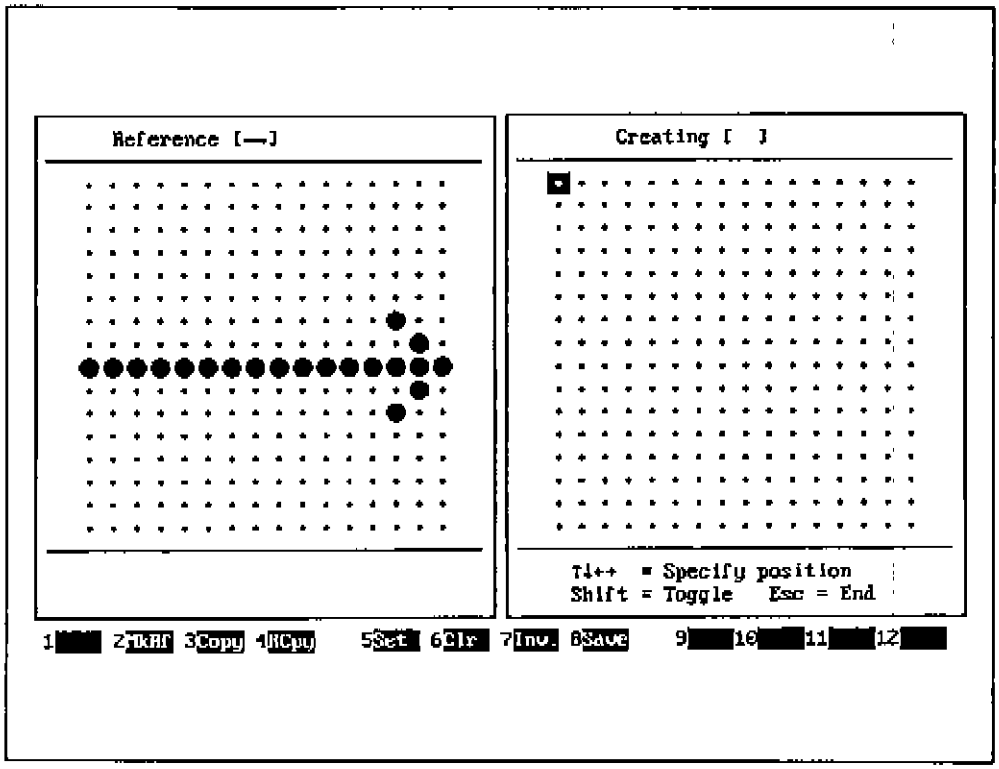
1, 2, 3...

1. Press F2 in Creation Display mode.
2. A list of marks is displayed.



3. Use the cursor to select the mark that you want to refer to, and then press the Return Key.

4. The selected mark is displayed on the Reference Display.



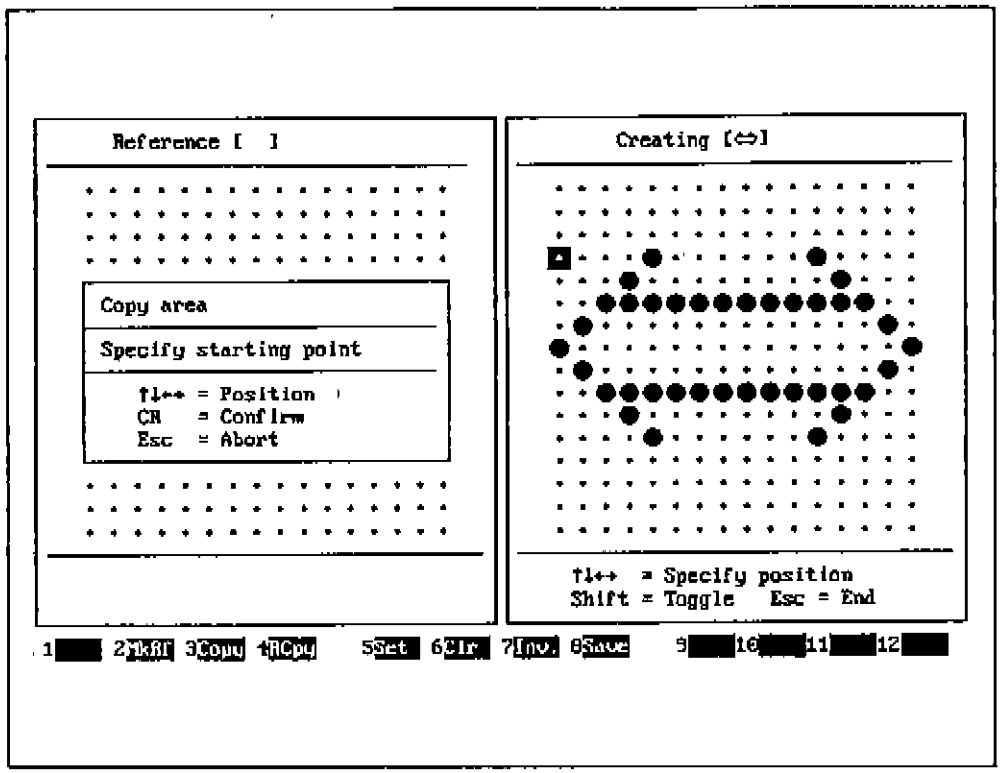
Copying

A designated rectangular area on the Creation Display is copied to another position by pressing F3.

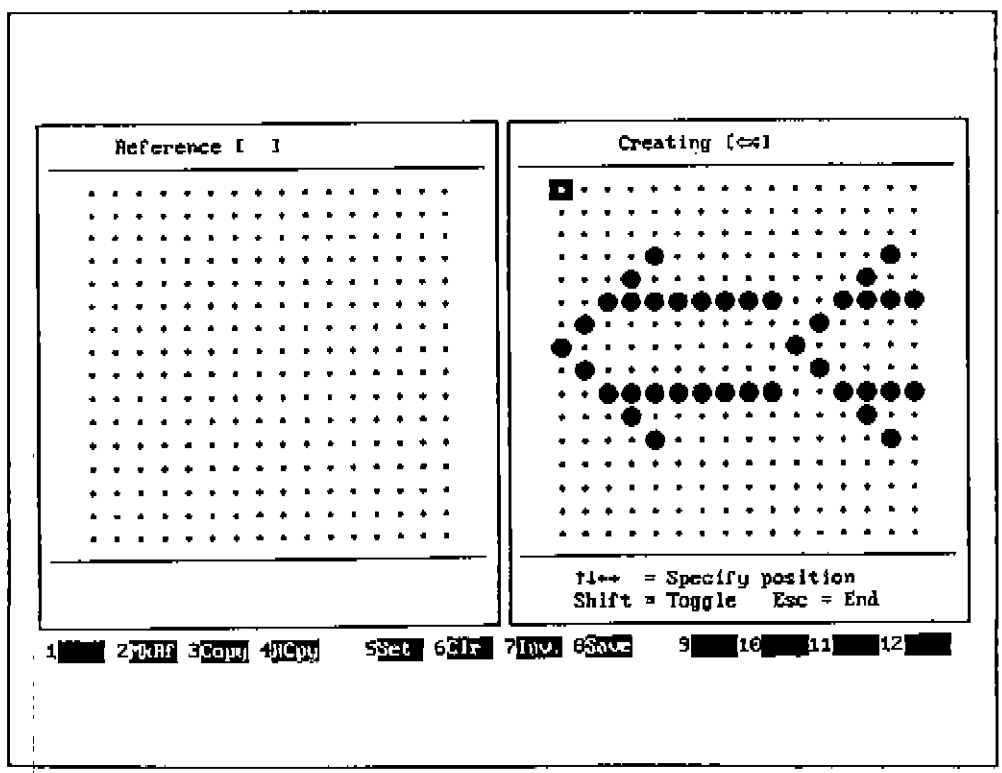
Press the Escape Key to cancel the operation and return to the Creation Display.

1, 2, 3...

1. Press F3 in Creation Display mode.
2. Move the cursor to the starting point of the rectangular area to be copied, and press the Return Key.
3. Move the cursor to the final point of the rectangular area, and then press the Return Key.
4. Move the cursor to the position to which the data in the designated rectangle is to be copied, and then press the Return Key.



5. The following screen will appear when the designated area has been copied to the designated position.



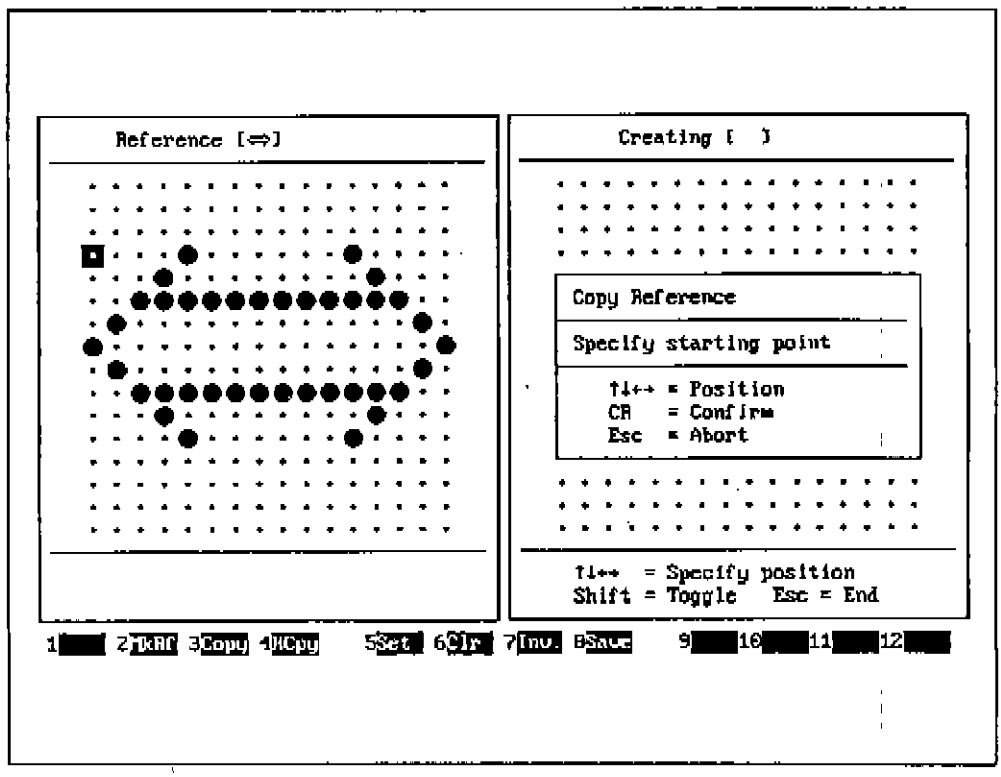
Reference Copy

A designated rectangular area on the Reference Display is copied to a new position on the Creation Display by pressing F4.

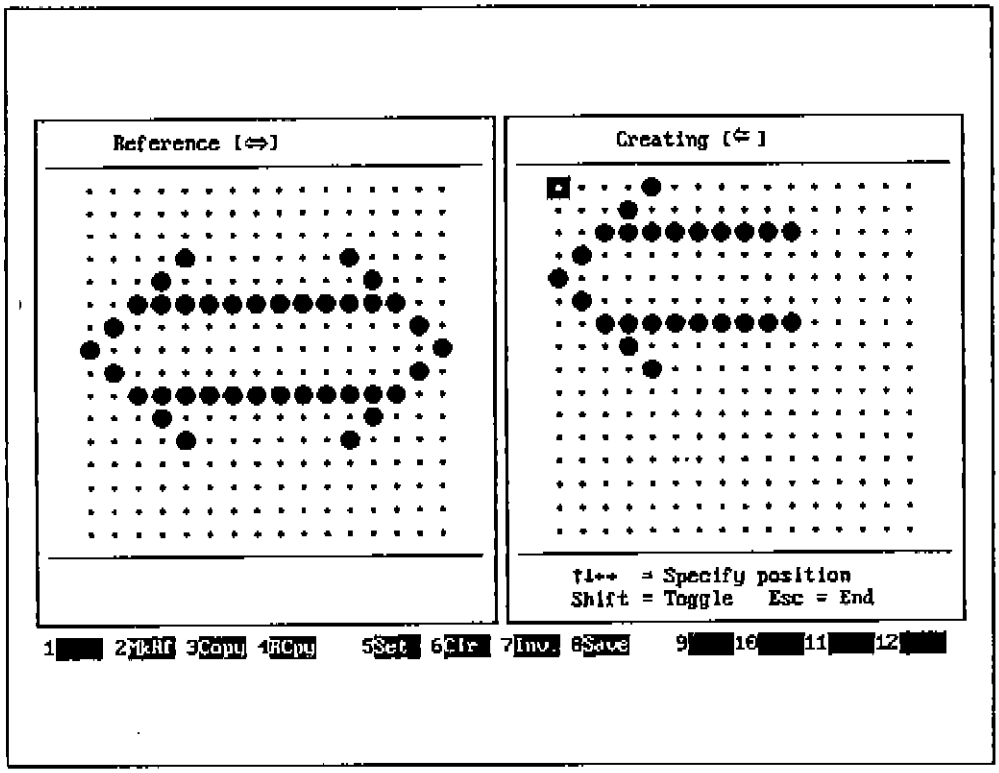
Press the Escape Key to cancel the operation and return to the Creation Display.

1, 2, 3...

1. Refer to page 26 to display the designated mark on the Reference Display.
2. Press F4 in Creation Display mode.
3. Move the cursor to the starting point of the rectangular area to be copied, and press the Return Key.
4. Move the cursor to the final point of the rectangular area, and press the Return Key.
5. Move the cursor to the position on the Creation Display to which the data in the designated rectangular is to be copied, and then press the Return Key.



6. The following screen will appear when the designated rectangular area has been copied to its new position.



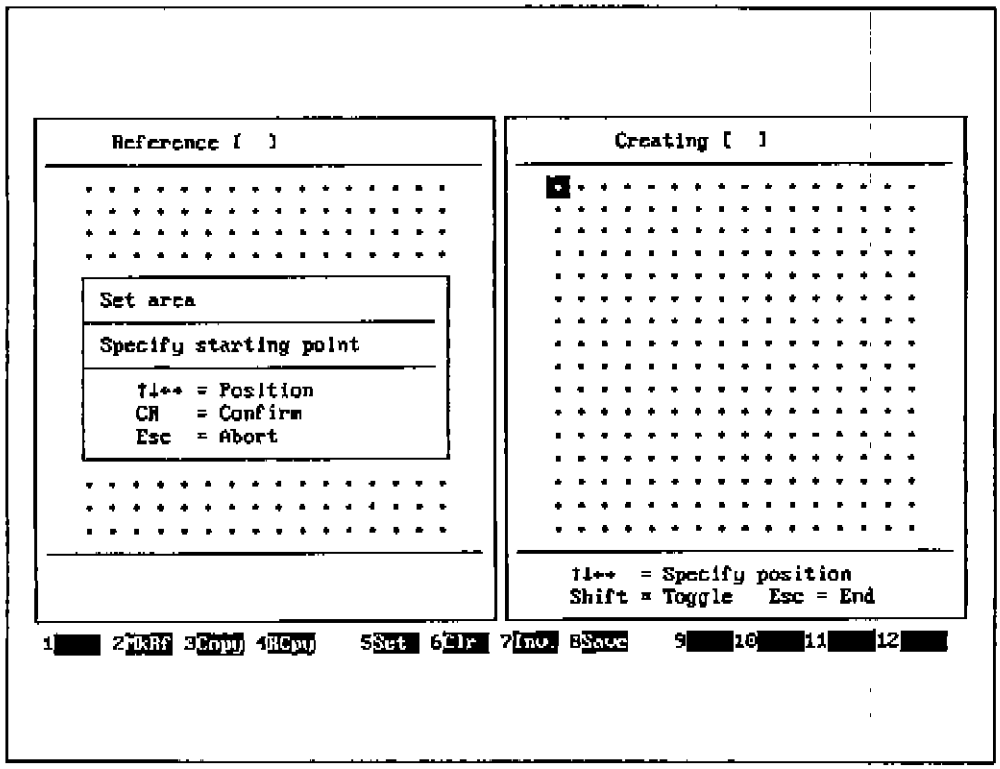
Area Set

All of the dots of a designated rectangular area are set on the Creation Display by pressing F5.

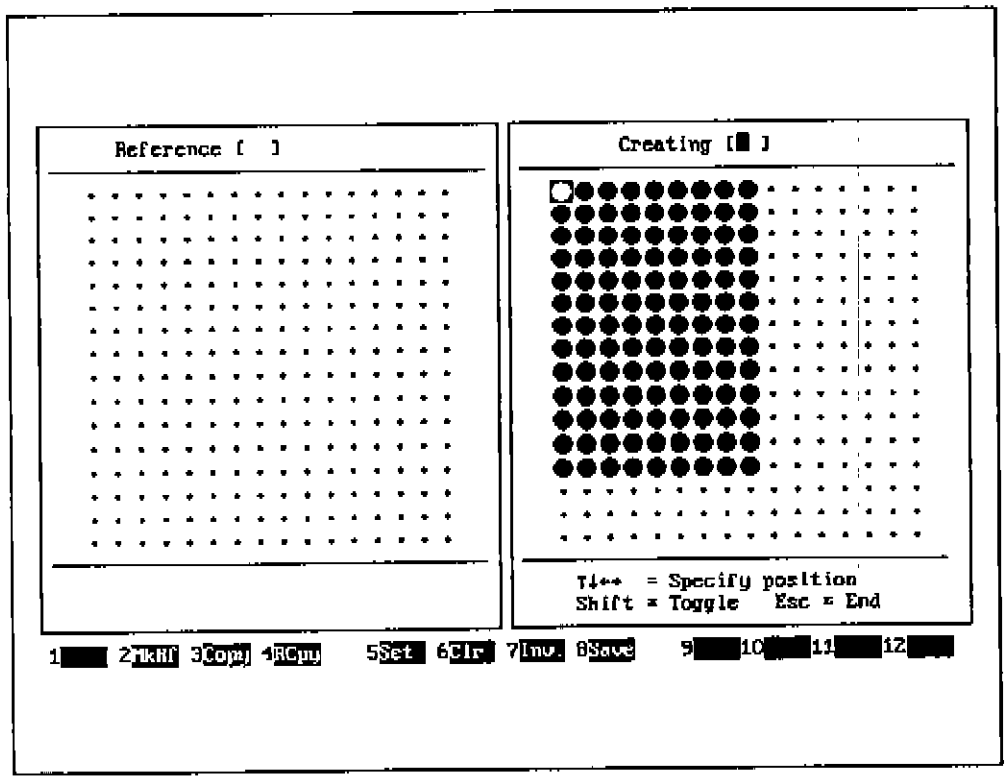
Press the Escape Key to cancel the operation and return to the Creation Display.

1, 2, 3...

1. Press F5 in Creation Display mode.
2. Move the cursor to the starting point of the rectangular area for setting, and then press the Return Key.
3. Move the cursor to the final point of the rectangular area, and then press the Return Key.



4. The following screen will appear when the dots of the designated rectangular area have been set.



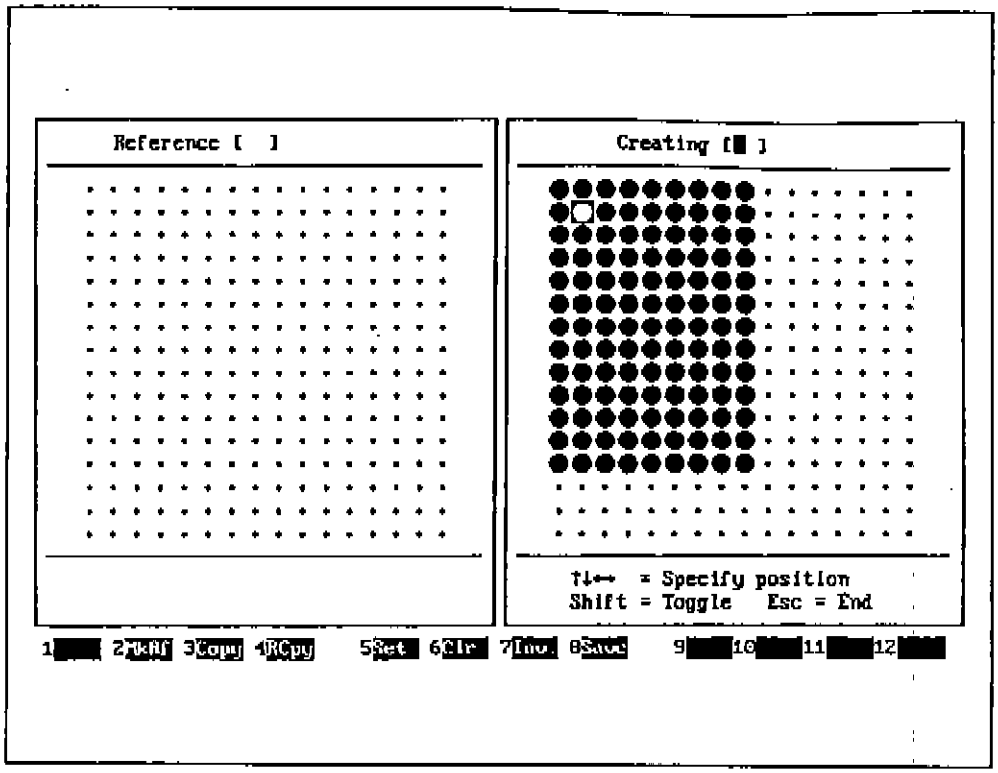
Area Clear

All of the dots of a designated rectangular area on the Creation Display are cleared by pressing F6.

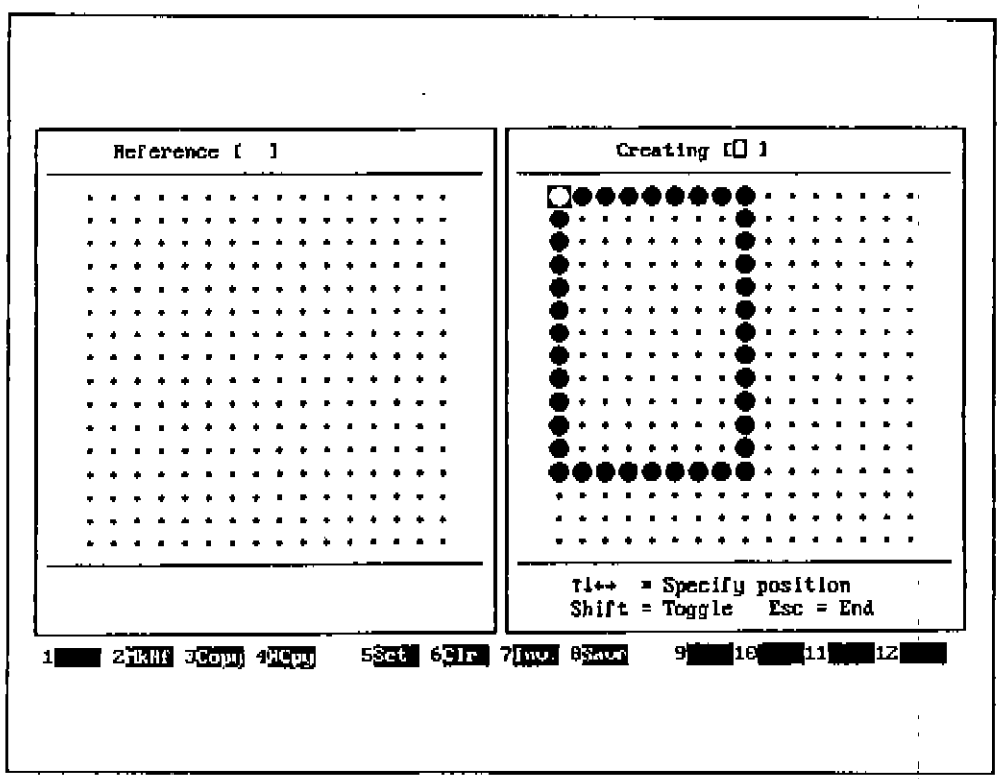
Press the Escape Key to cancel the operation and return to the Creation Display.

1, 2, 3... 1. Press F6 in Creation Display mode.

2. Move the cursor to the starting point of the rectangular area for clearing, and then press the Return Key.
3. Move the cursor to the final point of the rectangular area, and then press the Return Key.



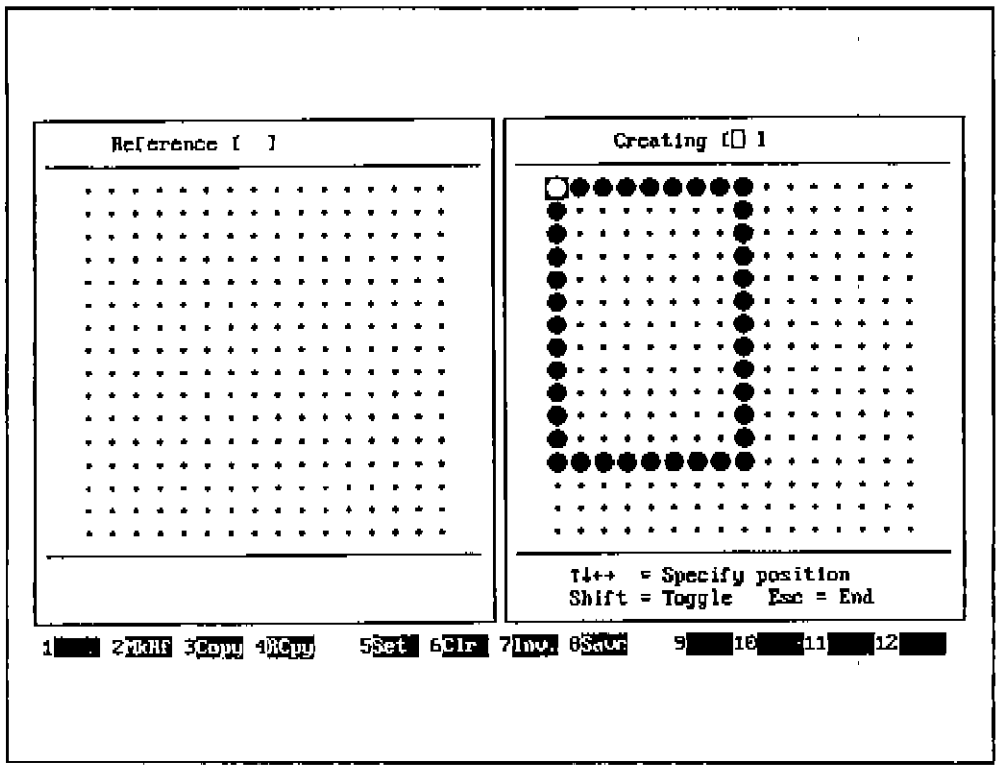
4. The following screen will appear when the dots of the designated rectangular area have been cleared.



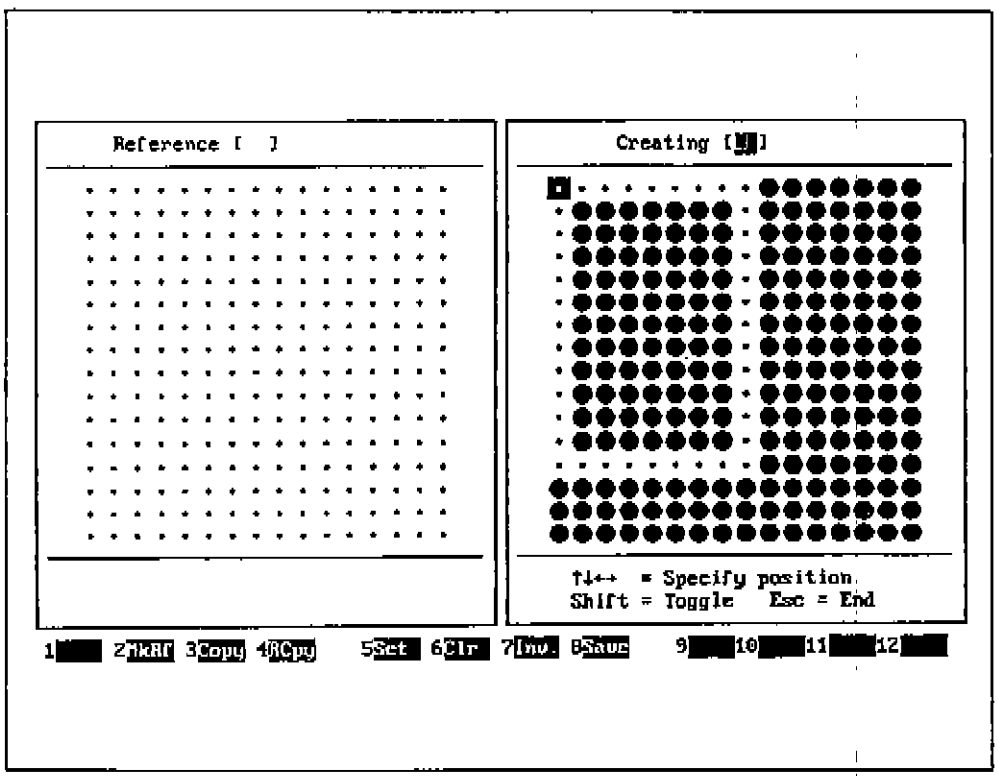
Inverse

The status of all the dots on the Creation Display is reversed by pressing F7.

1, 2, 3... 1. Press F7 in Creation Display mode.



2. The following screen will appear when the dots on the Creation Display have been reversed.

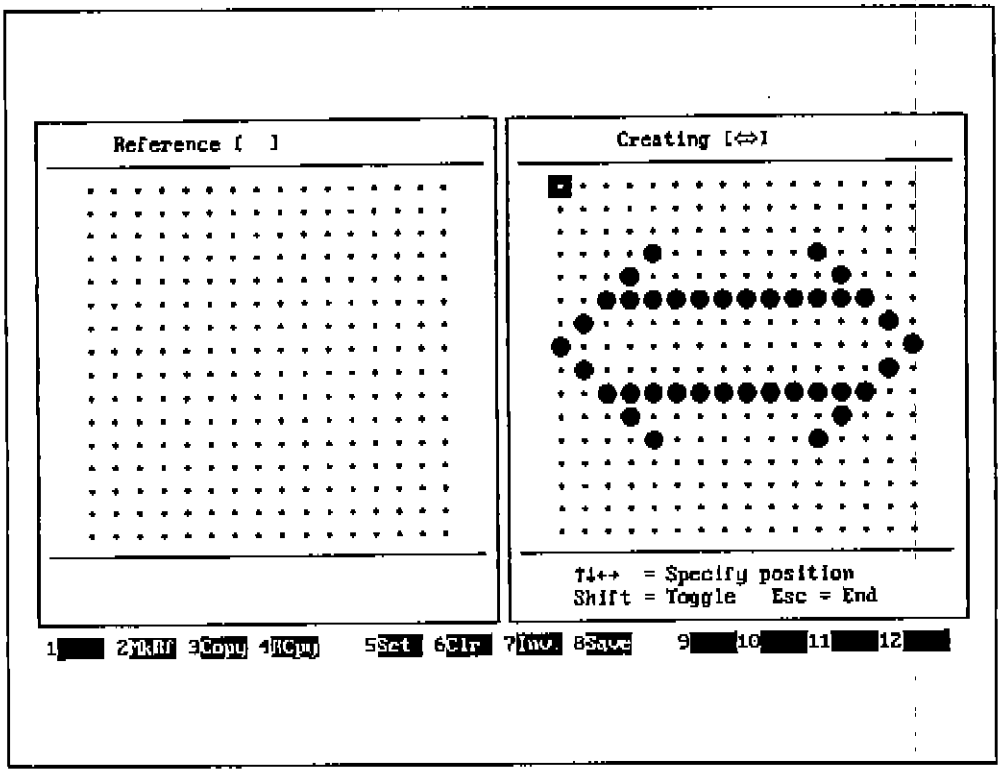


Save

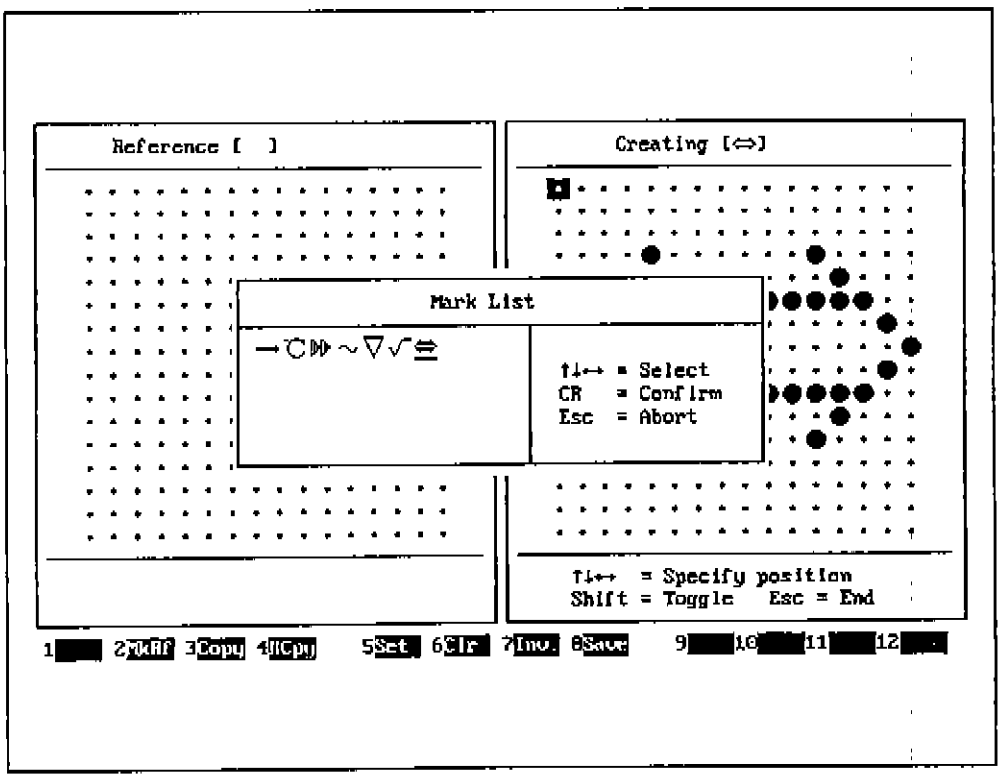
Data displayed on the Creation Display is registered as a mark by pressing F8.

1, 2, 3... 1. Press F8 in Creation Display mode.

2. A list of marks is displayed.

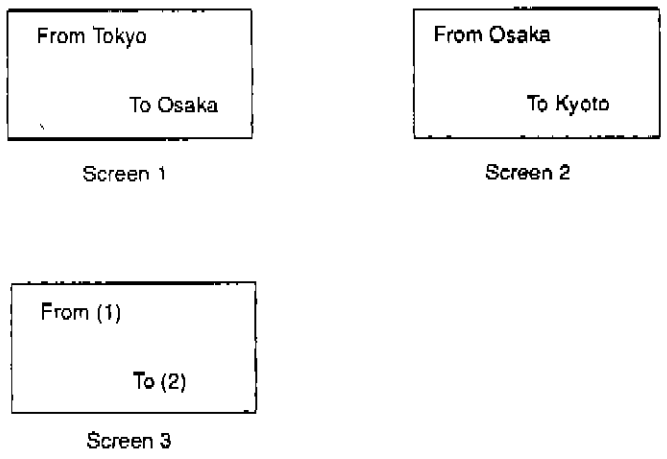


3. Designate the position of the list where the mark is saved, and then press the Return Key.



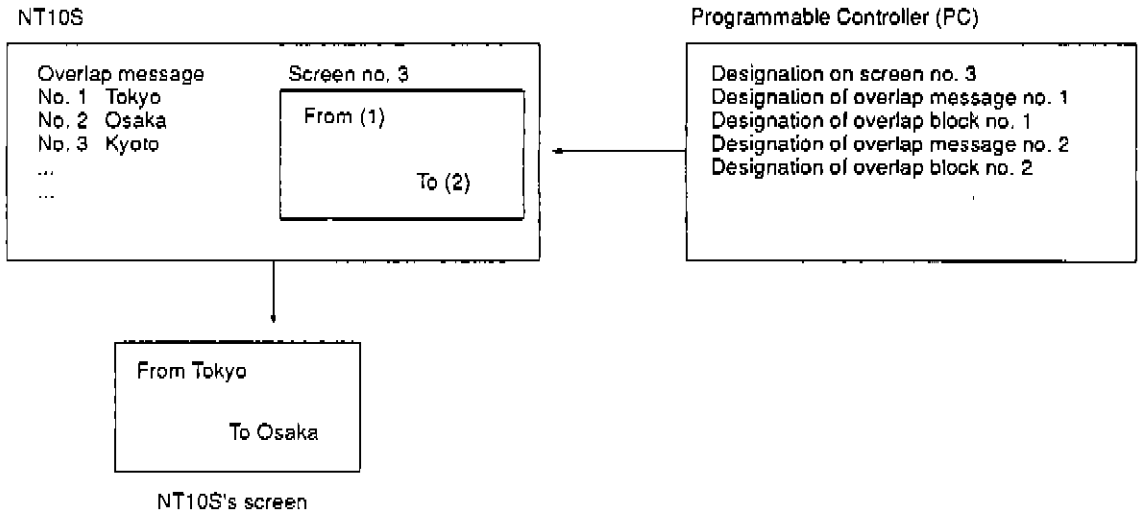
6-5 Overlap Messages

The overlap display function and overlap messages are explained below.



Screens 1 and 2 are identical except for Tokyo, Osaka, and Kyoto. These screens can be replaced by Screen 3, inserting the required place names in (1) and (2) by using the overlap display function. Areas (1) and (2) are called overlap block numbers (see note).
It is possible to register up to 160 overlap messages on the NT10S. Each message must consist of up to 16 half-spaced characters.

Overlap Message Display

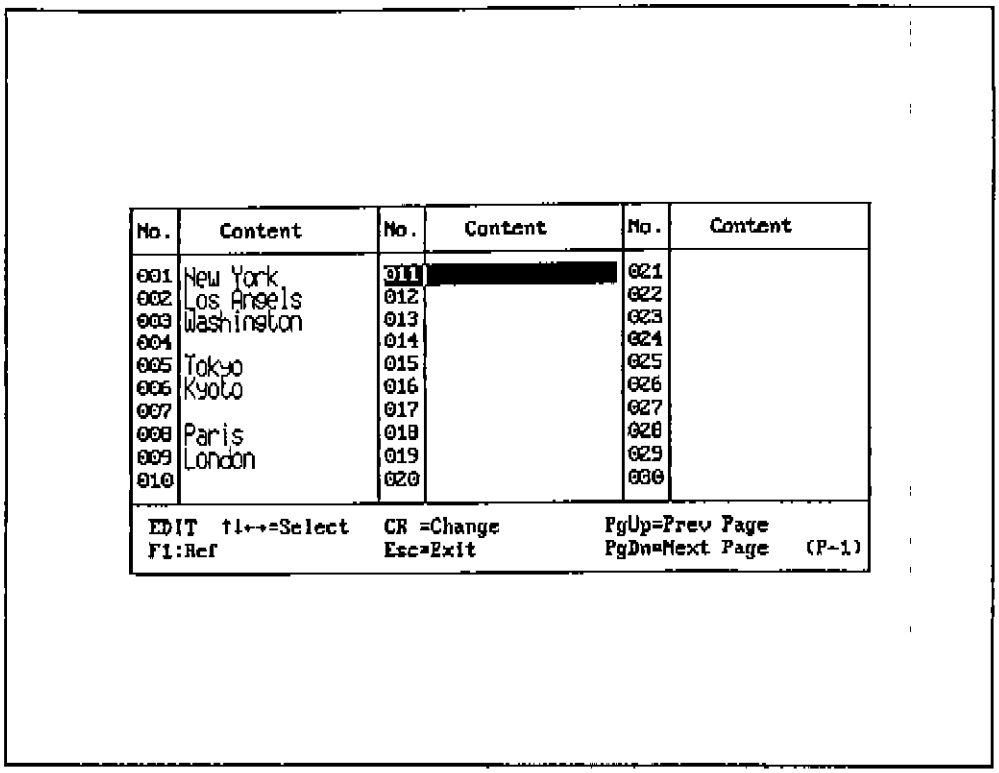


Note The following symbols will appear when overlap block numbers 1 and 2 are designated on the editing screen. (0 1, 0 2)

6-5-1 Editing Overlap Message

You can edit overlap messages with the NT10S.

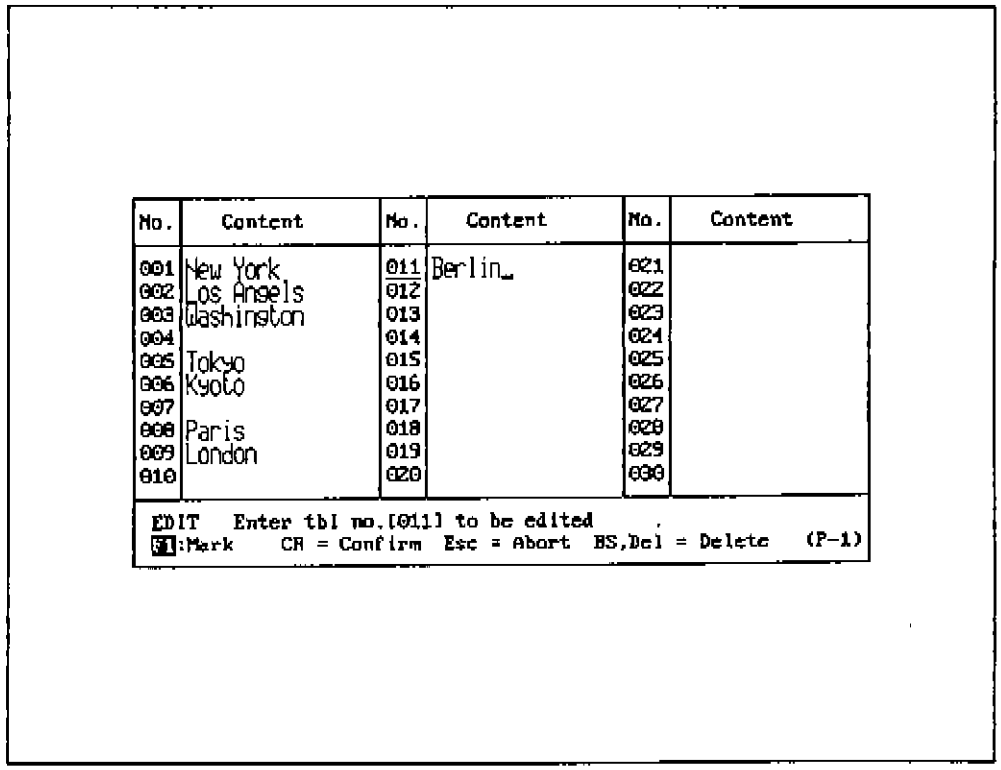
1, 2, 3... 1. Move the cursor to the position where the overlap message to be edited is located, and then press the Return Key.



No.	Content	No.	Content	No.	Content
001	New York	011		021	
002	Los Angels	012		022	
003	Washington	013		023	
004		014		024	
005	Tokyo	015		025	
006	Kyoto	016		026	
007		017		027	
008	Paris	018		028	
009	London	019		029	
010		020		030	

EDIT ↑↓←→=Select CR =Change PgUp=Prev Page
F1:Ref Esc=Exit PgDn=Next Page (P-1)

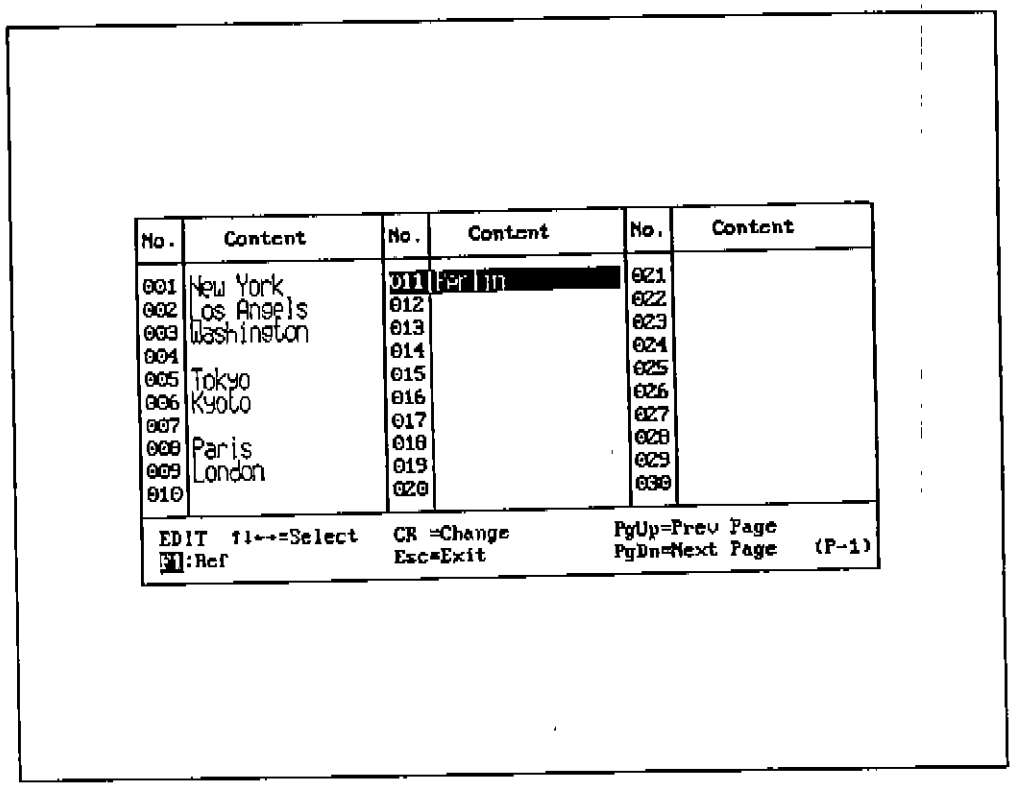
2. Edit the overlap message.



No.	Content	No.	Content	No.	Content
001	New York	011	Berlin_	021	
002	Los Angels	012		022	
003	Washington	013		023	
004		014		024	
005	Tokyo	015		025	
006	Kyoto	016		026	
007		017		027	
008	Paris	018		028	
009	London	019		029	
010		020		030	

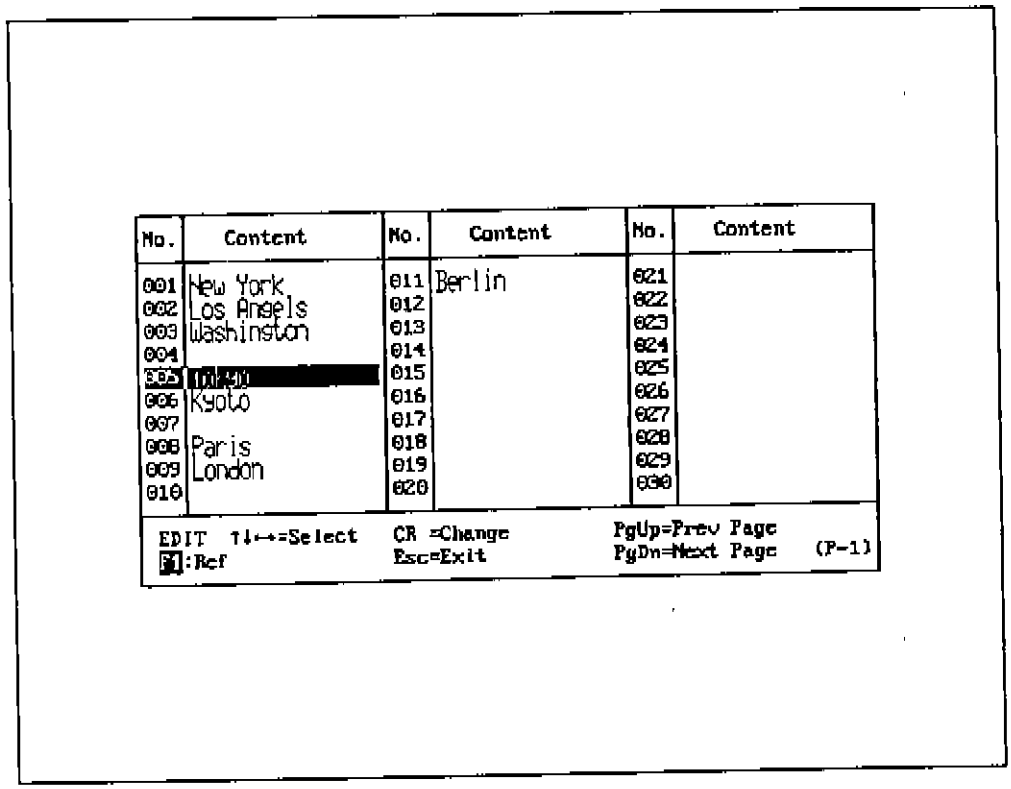
EDIT Enter tbl no.[011] to be edited
F1:Mark CR = Confirm Esc = Abort BS,Del = Delete (P-1)

3. Press the Return Key to save the edited overlap message.



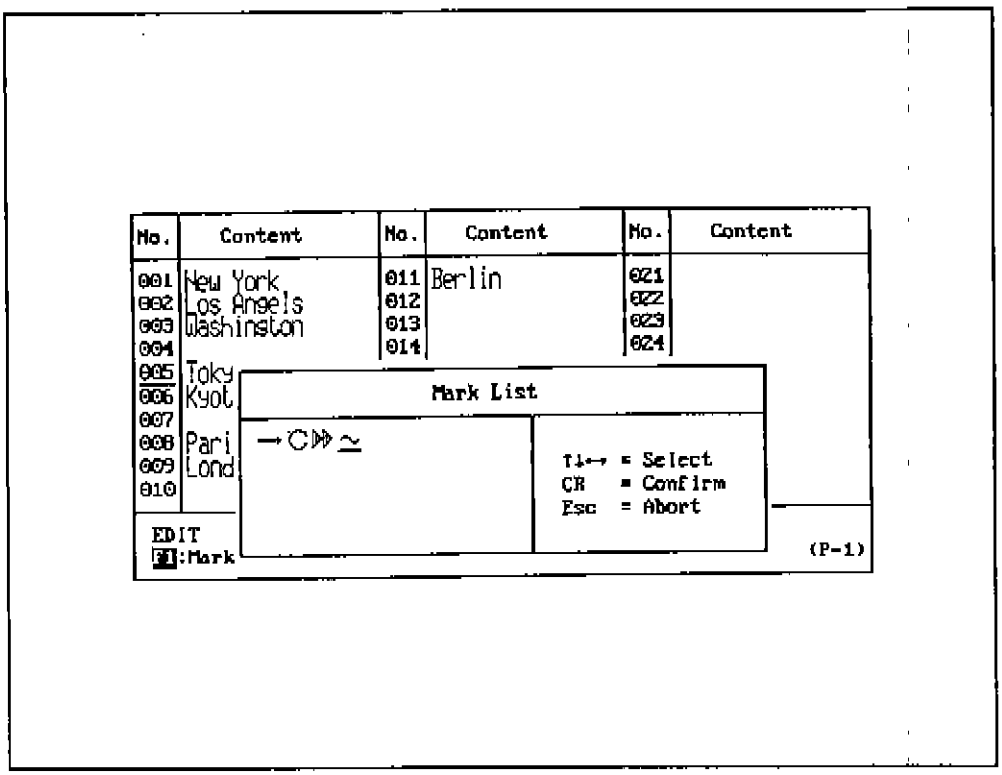
6-5-2 Mark Input

1, 2, 3... 1. Use the cursor and designate the overlap message to be edited, and then press the Return Key.

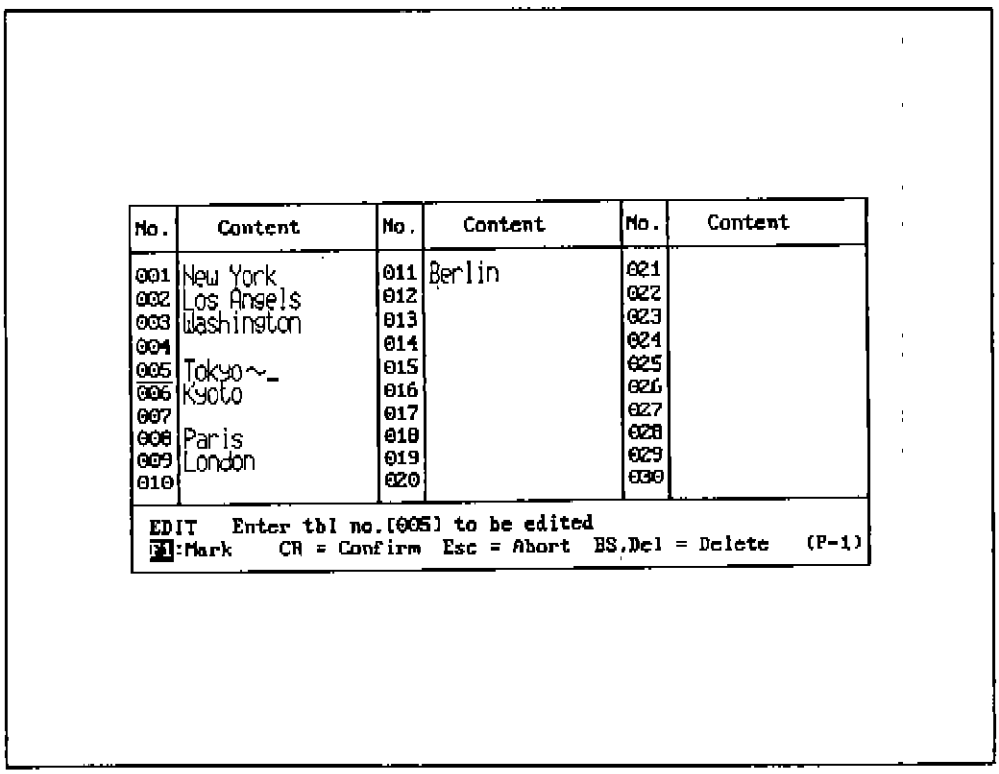


2. Press F3.

3. A list of marks is displayed. Use the direction keys to designate the mark to be used.



4. After pressing the Return Key, the designated mark will be retrieved into the overlap message.

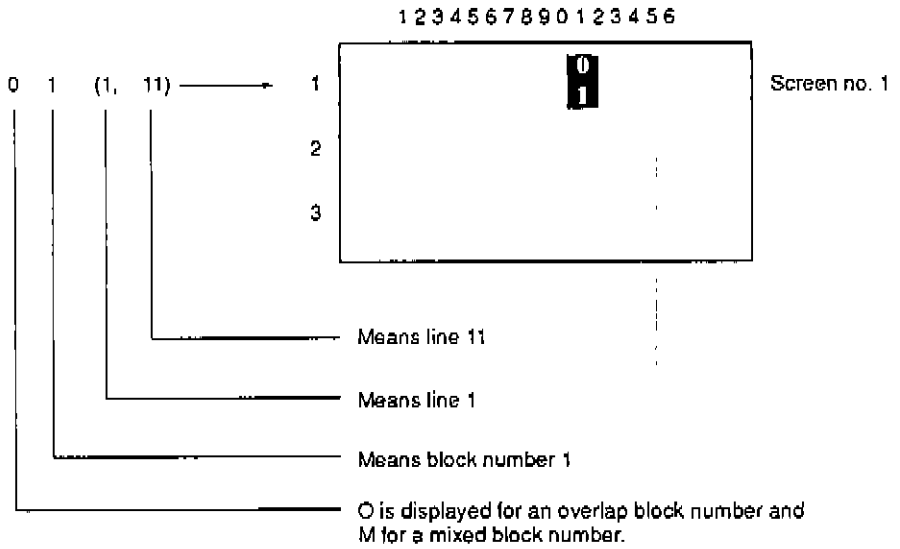


6-5-3 Reference Display

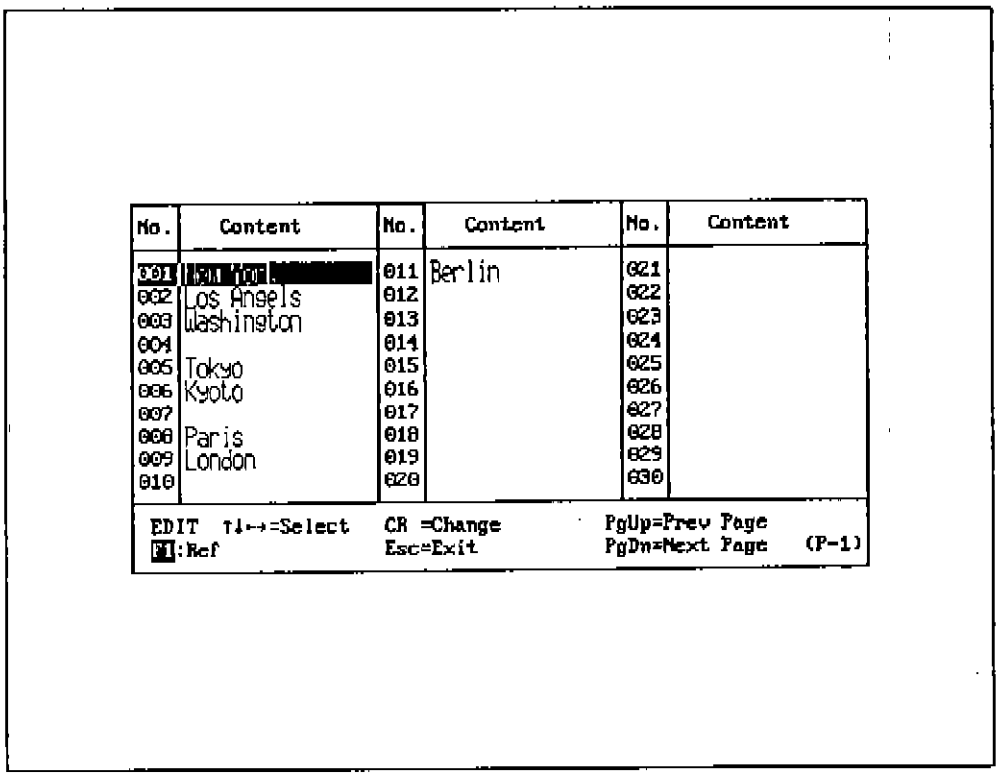
The reference display function enables the screen to display how each overlap block number and mixed block number that have been saved are used on the screen.

Meanings of Display

The following illustration is an example of screen number 1 where the data "01 (1, 11)" are displayed.



1, 2, 3... 1. Press F1.



2. Only the screens with overlap and mixed blocks will be displayed.
3. Press the Escape Key to end the Reference Display.

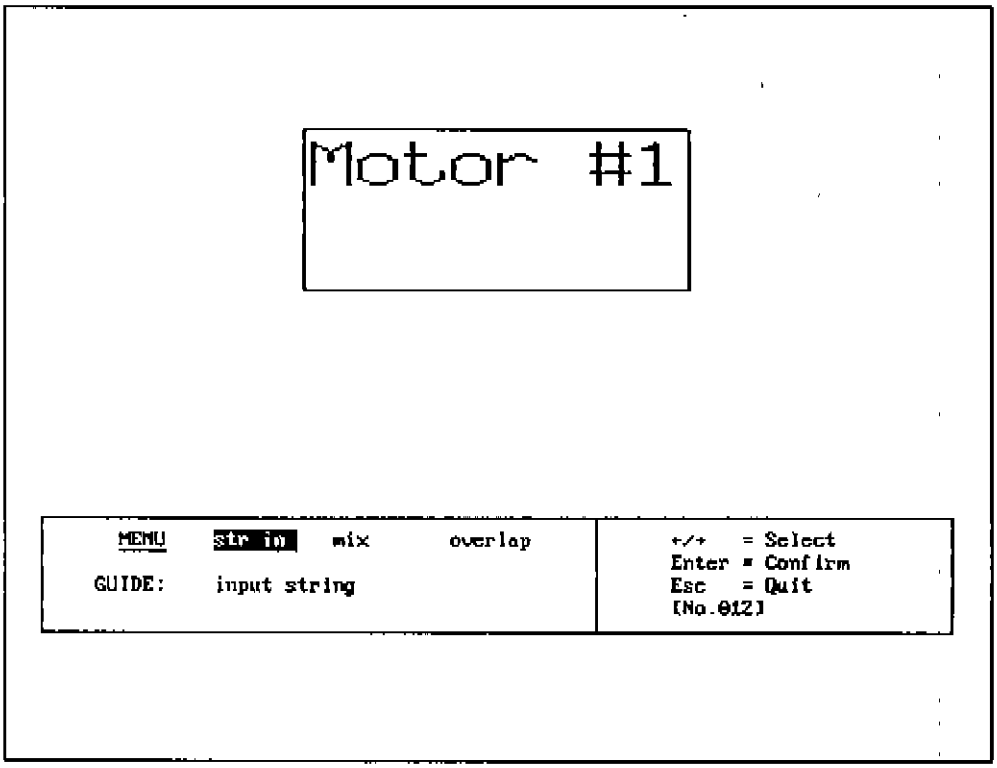
No.	Comment	Reference
001	Running!!	01(1, 1)
003	MotorZ is heated	M1(3, 1) M2(3, 6) M3(3,11)
001	Push the function key	08(1, 9) 01(2, 1) 06(3, 1)
008	overlap	01(1, 1) 02(1, 2) 03(1, 3) 04(1, 4) 05(1, 5) 06(1, 6) 07(1, 7) 08(1, 8)
009	mixing test	M3(1, 1) M2(1, 7)
Esc=Exit		

SECTION 7
Creating Screens

This section describes how to create new or modify existing screens, including mixed and overlapping displays.

7-1 Initial Display Edit

If you select a screen number from the Screen Selection Display, the Initial Edit Display will be displayed. The NT10S screen image display area will be shown in the rectangular box at the top of the display.



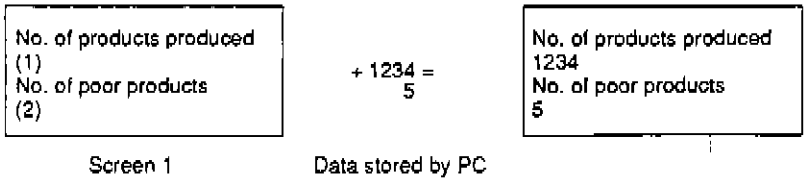
7-2 Screen Create Display

Screen Create Display Function

The following operations can be performed on the Screen Create Display.

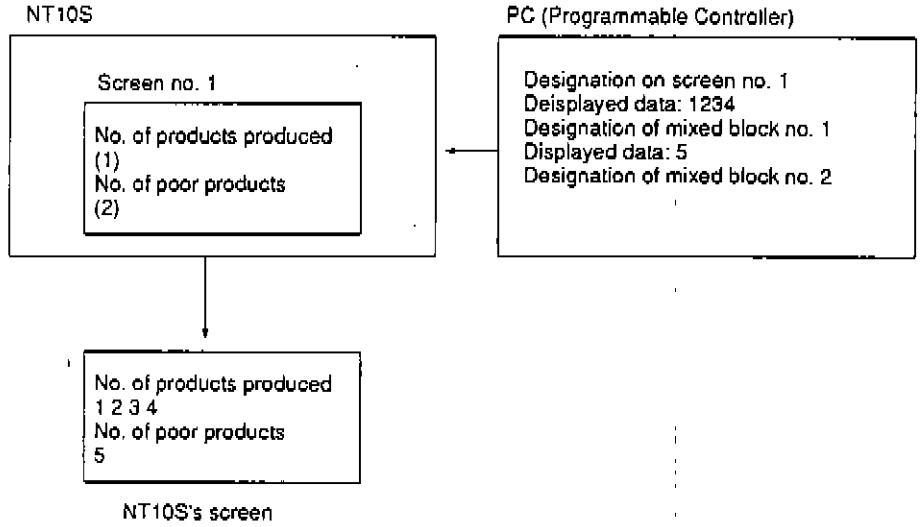
Item	Function
Input string (STR IN)	Inputs character strings to be displayed on the screen and sets their display positions and the manner in which they are to be displayed. Character strings input in this way are treated as fixed displays, and their characters cannot be changed while the Programmable Terminal is operating.
Mixed display (MIX)	Sets the positions and block numbers for executing mixed displays.
Overlap display (OVERLAP)	Sets the positions and block numbers for executing overlap displays.

Mixed Display Function



The mixed display function enables the screen to display both the PC's data and NT10S's screen data as shown in the above illustrations.
PC's data such as alphabets, and figures can be displayed.
Numbers (1) and (2) are called mixed block numbers (see note).

Mixed Display Method



Note The following symbols will appear when mixed block numbers 1 and 2 are designated on the editing screen. (M1, M2)

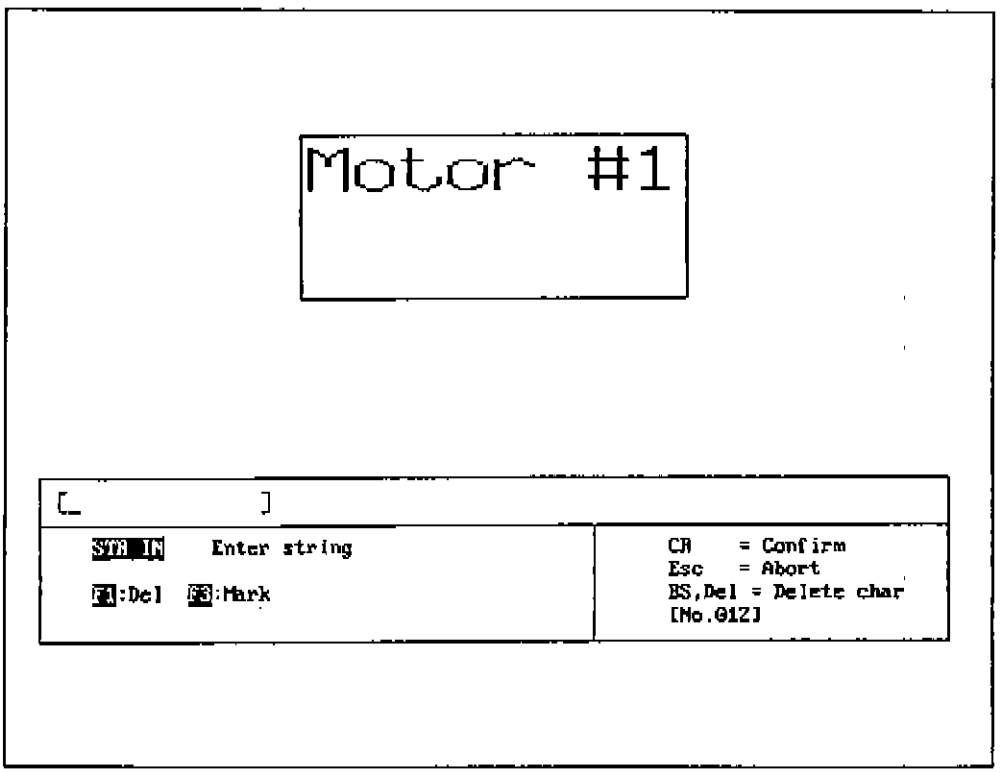
7-2-1 Inputting Character Strings

Character strings displayed at the PT can be input with STR IN. If you select STR IN from the Initial Create Screen, the Initial String Input Display will appear. In this display you can set the character size, display attributes, and display position for the string to be input. The procedure for inputting character strings is explained below.

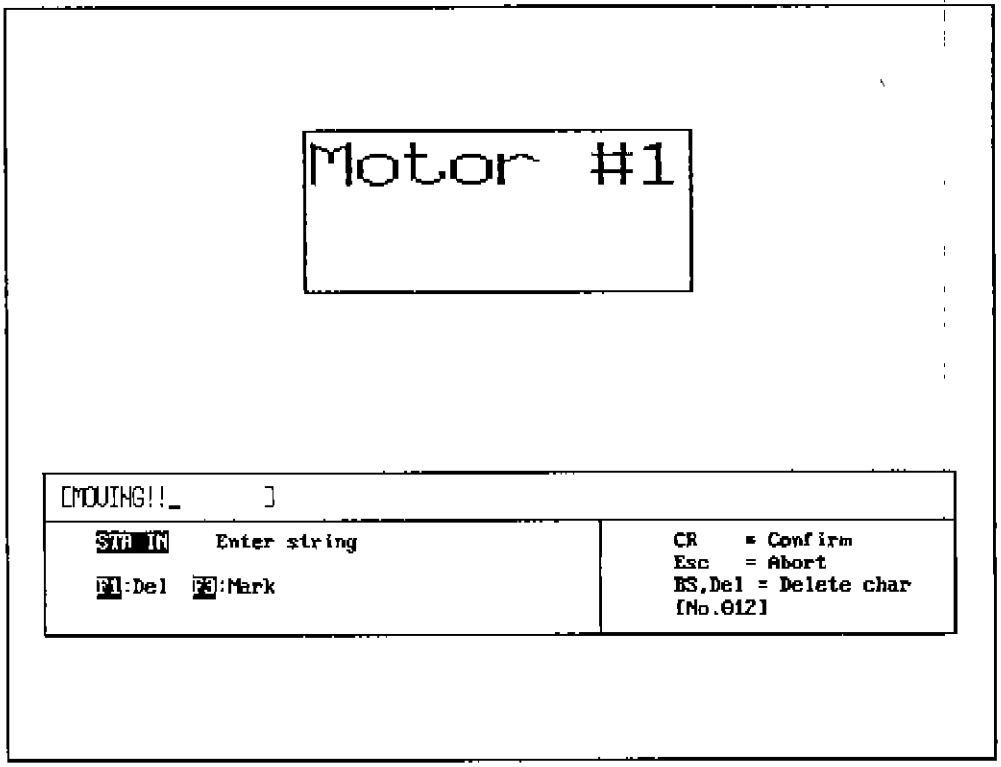
Help messages will be displayed. Follow the instructions for to input strings.

Procedures

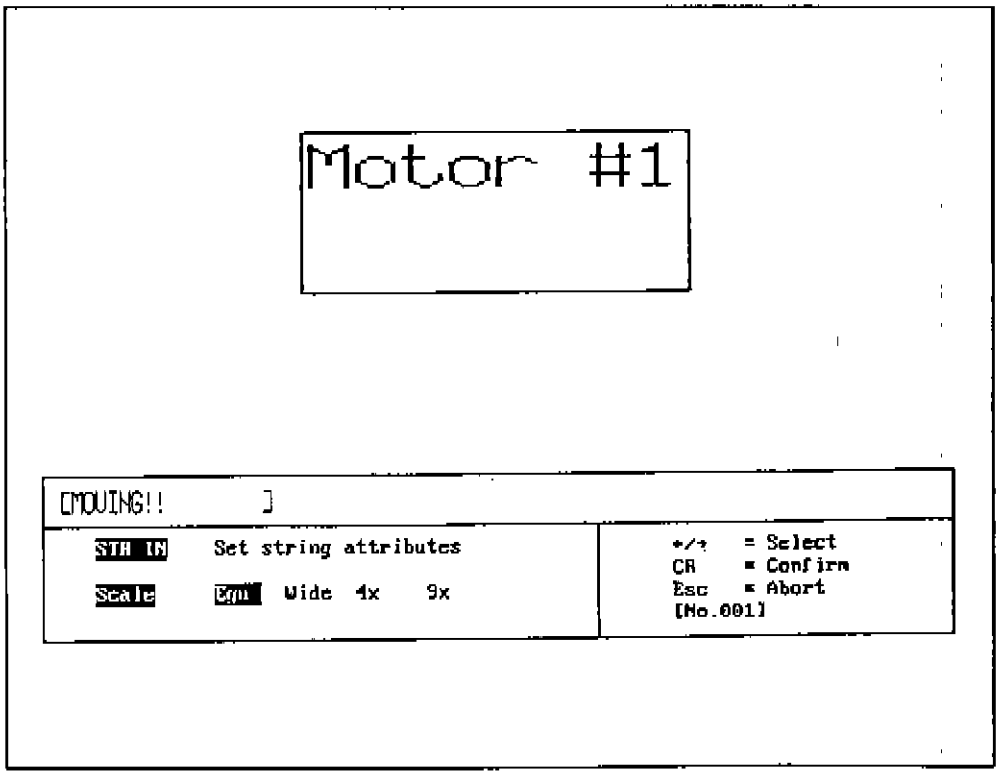
1, 2, 3... 1. Select STR IN from the Initial Create Display.



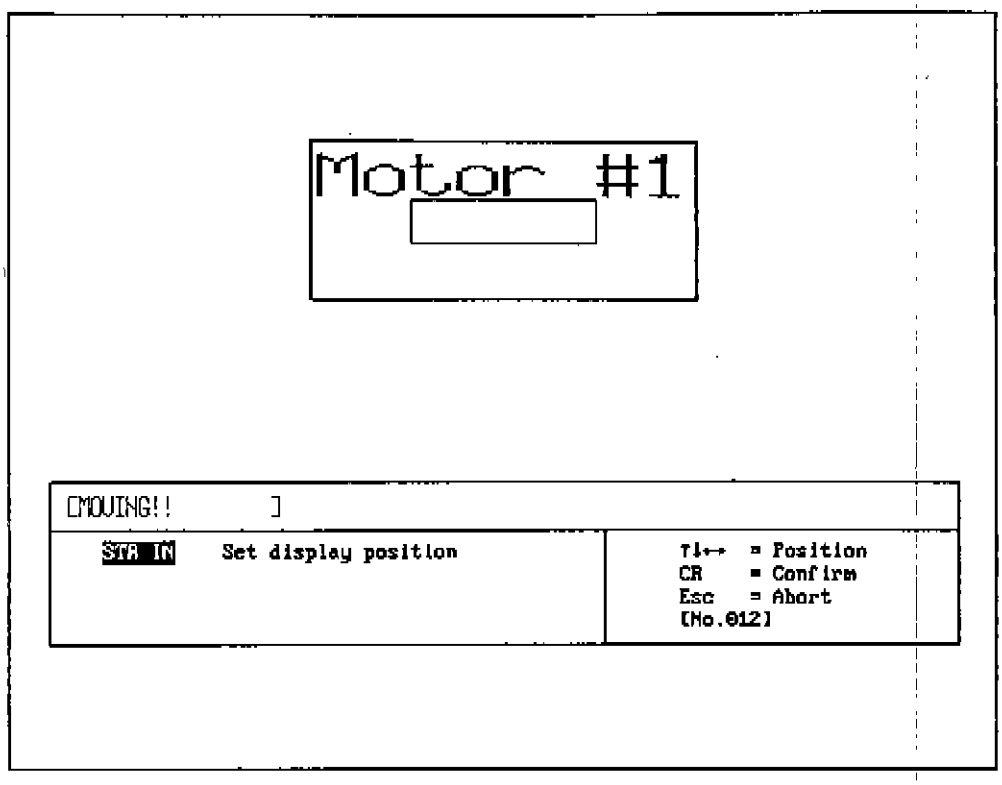
2. Input the string, and then press the Return Key.



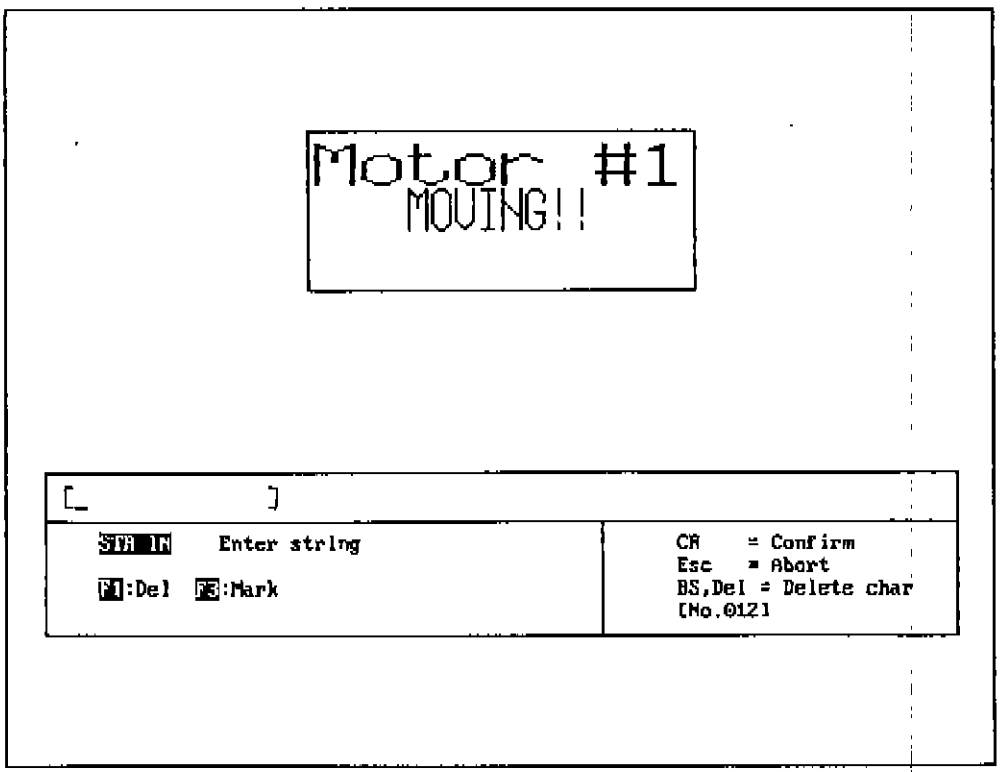
3. Select the character size, and press the Return Key.
4. The string in the selected size must not overflow the screen frame or you cannot go to the next step.



5. Use the direction keys to designate the display position, and then press the Return Key.

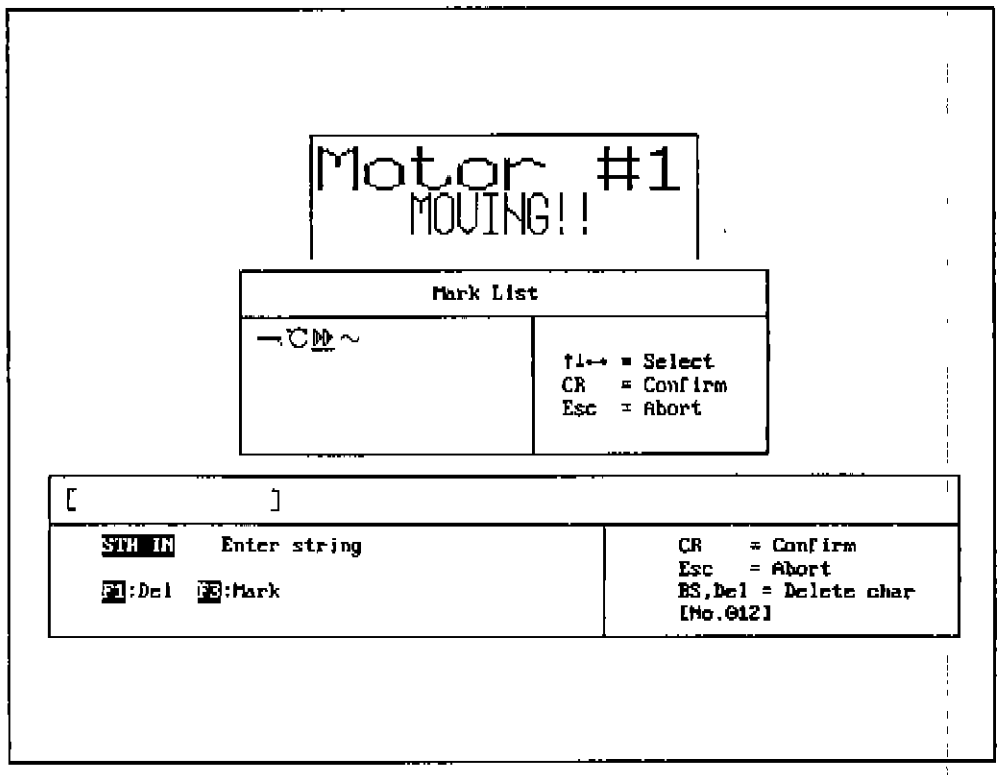


6. The following screen will appear when the string input has been completed.

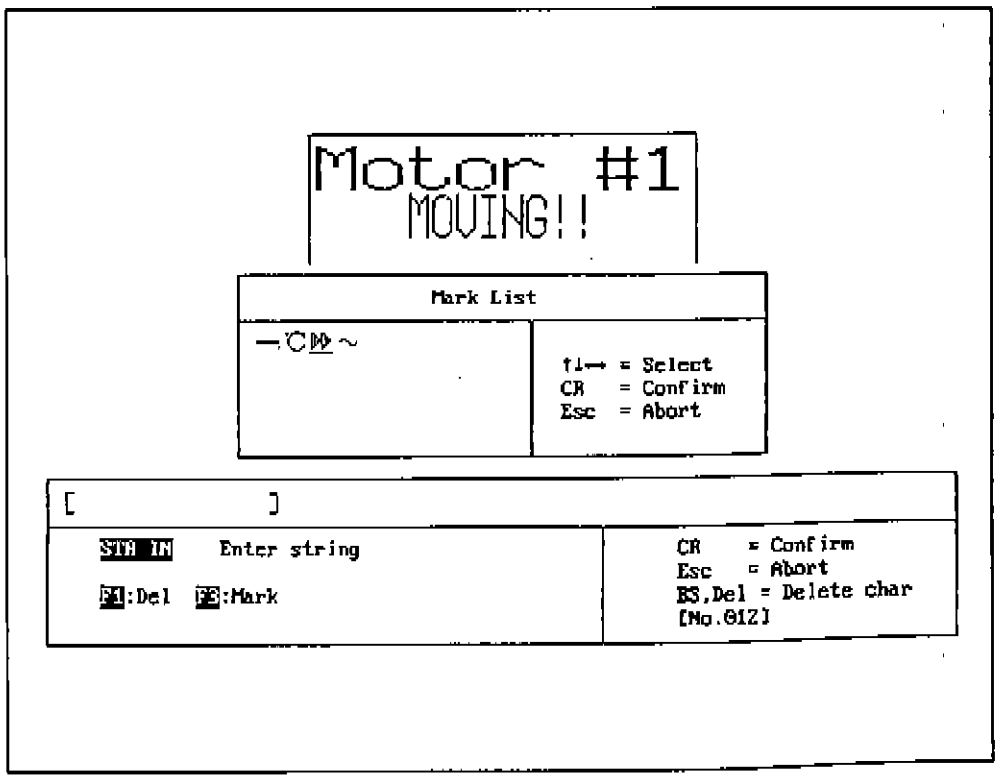


Inputting Marks

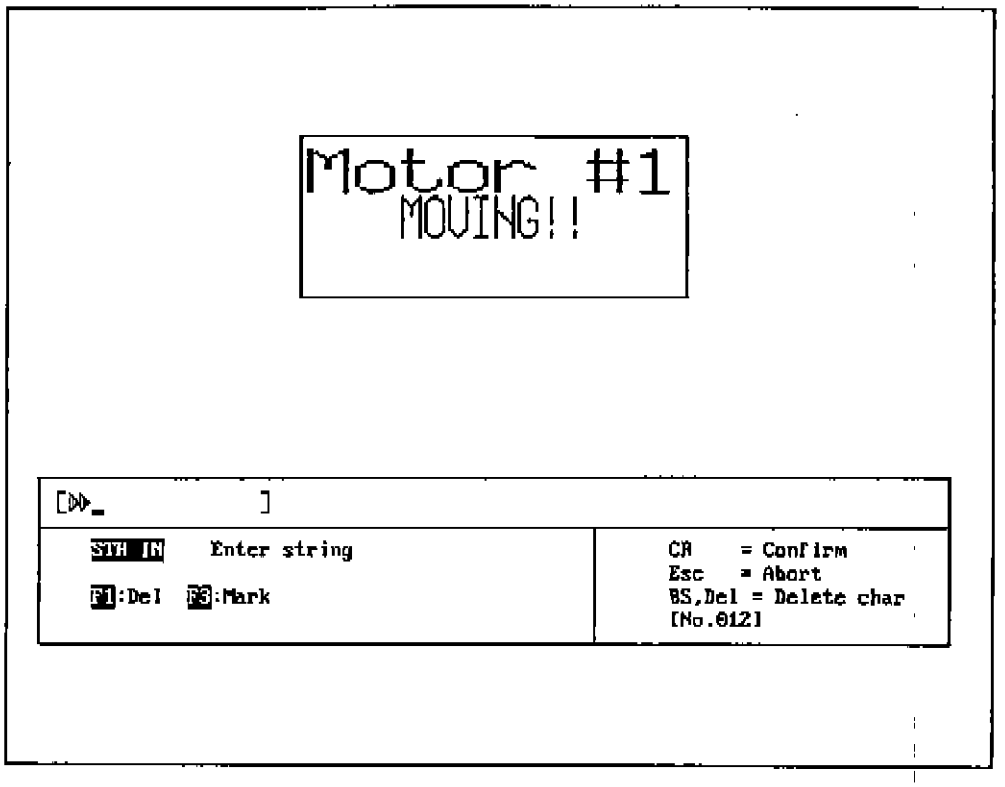
1, 2, 3... 1. Press F3.



2. A list of marks will be displayed. Use the direction keys to designate the character to be used.

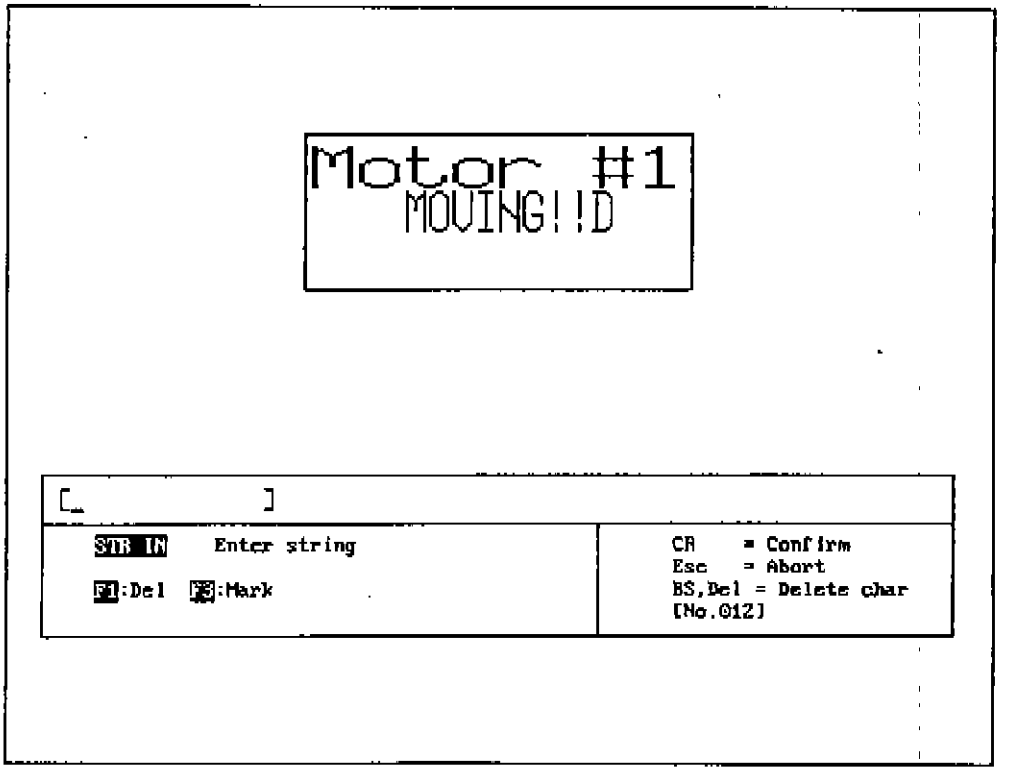


3. Press the Return Key to insert the character into the string input area.

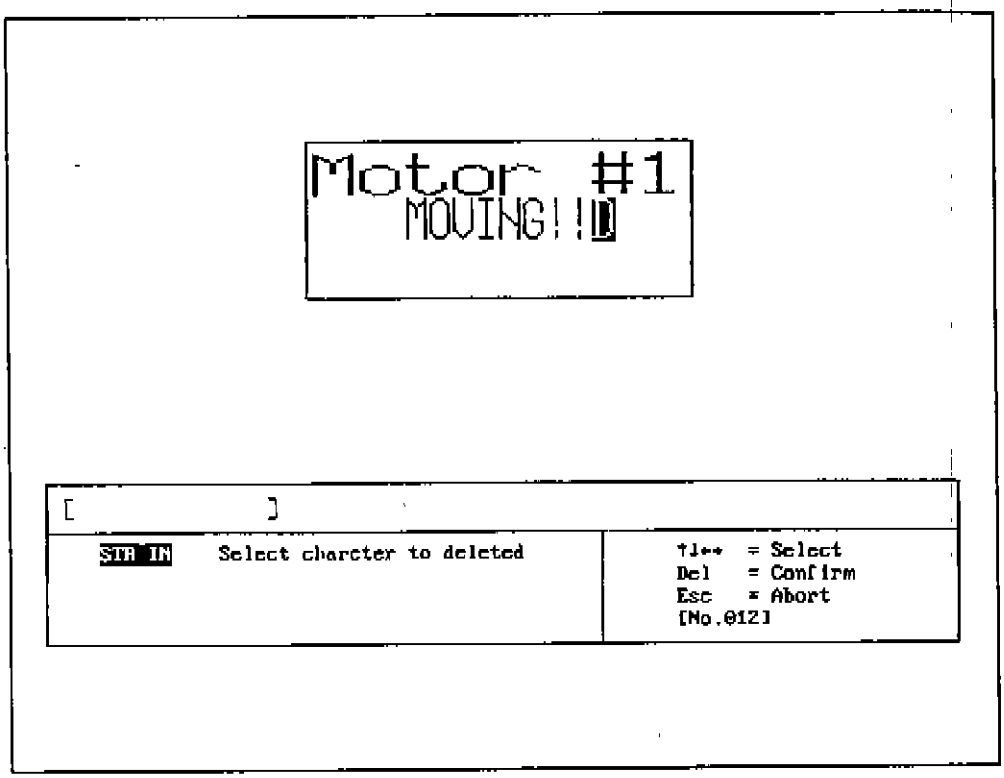


Deleting Character Strings

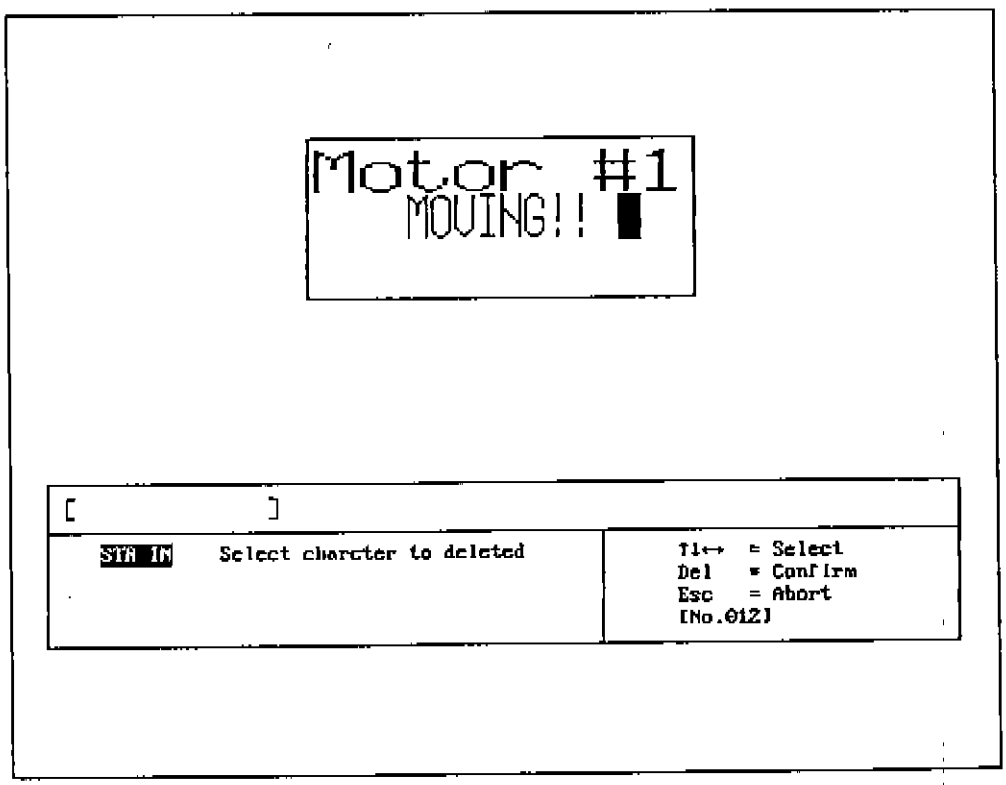
1, 2, 3... 1. Press F1.



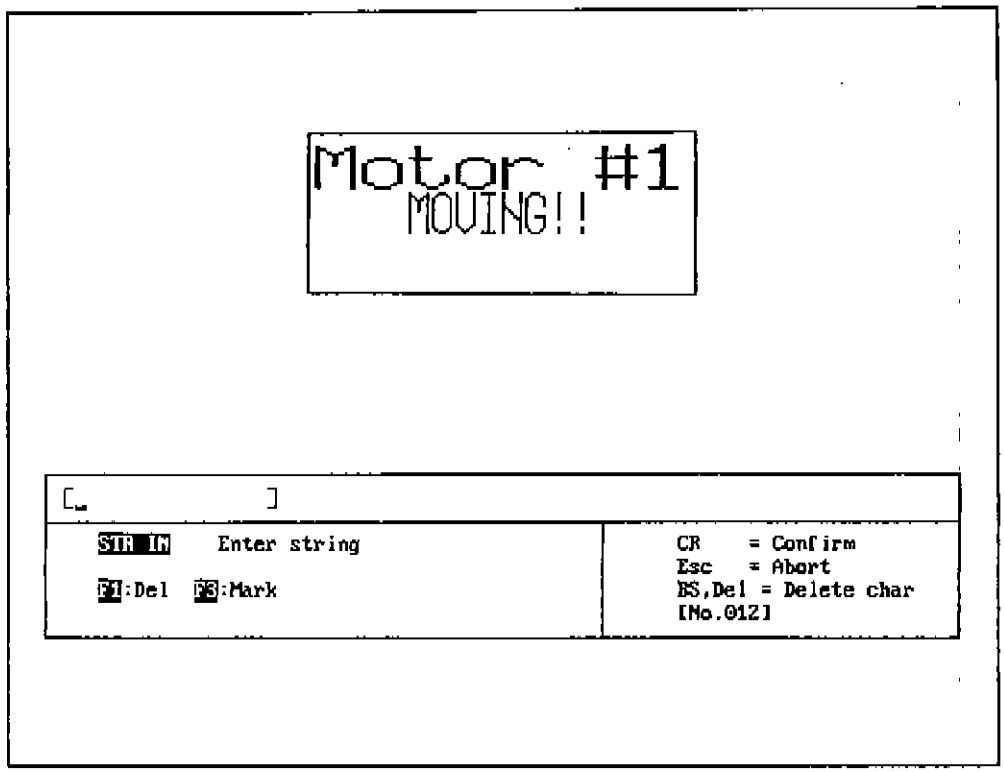
2. Use the direction keys to move the cursor to the character string that you want to delete.



3. Press the Delete Key to delete the character string at the cursor.



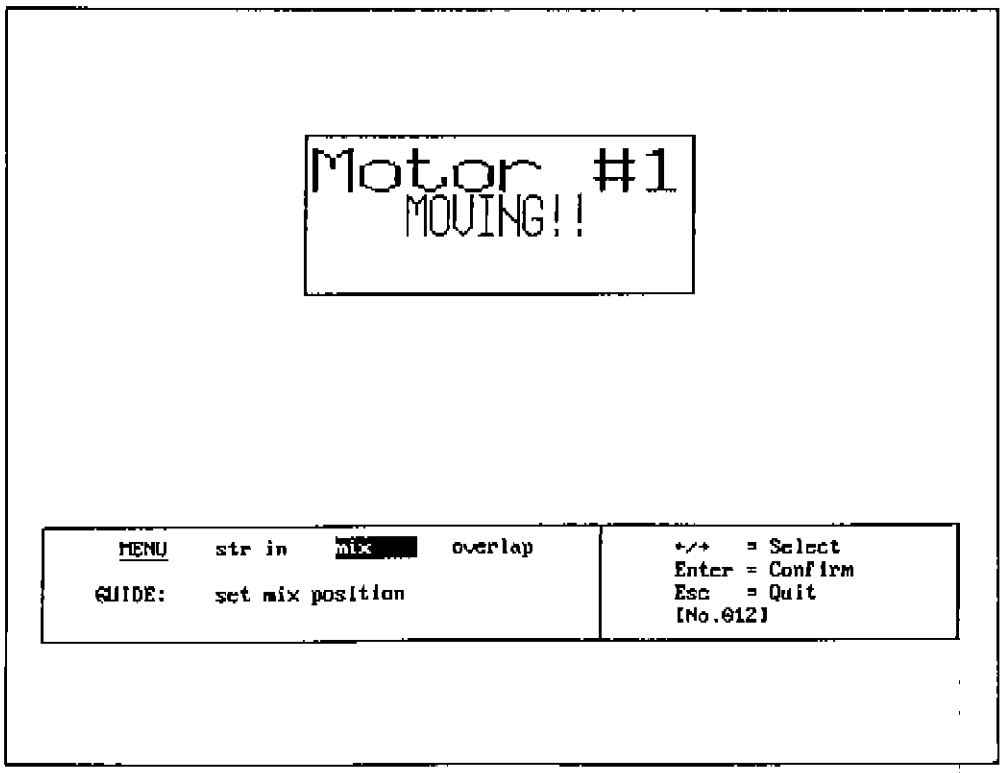
4. To end the delete operation, press the Escape Key.



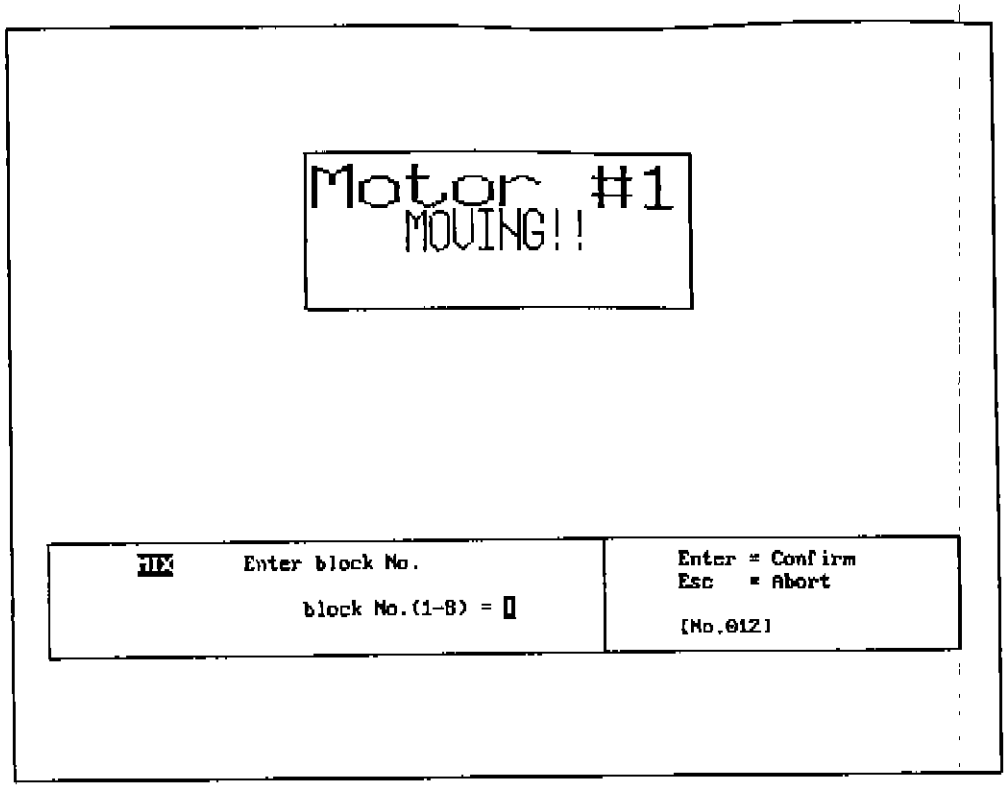
7-2-2 Mixed Displays

Use MIXED to set the display block number (1 to 8) and the starting position for the mixed display. Follow the steps outlined below to execute a mixed display.

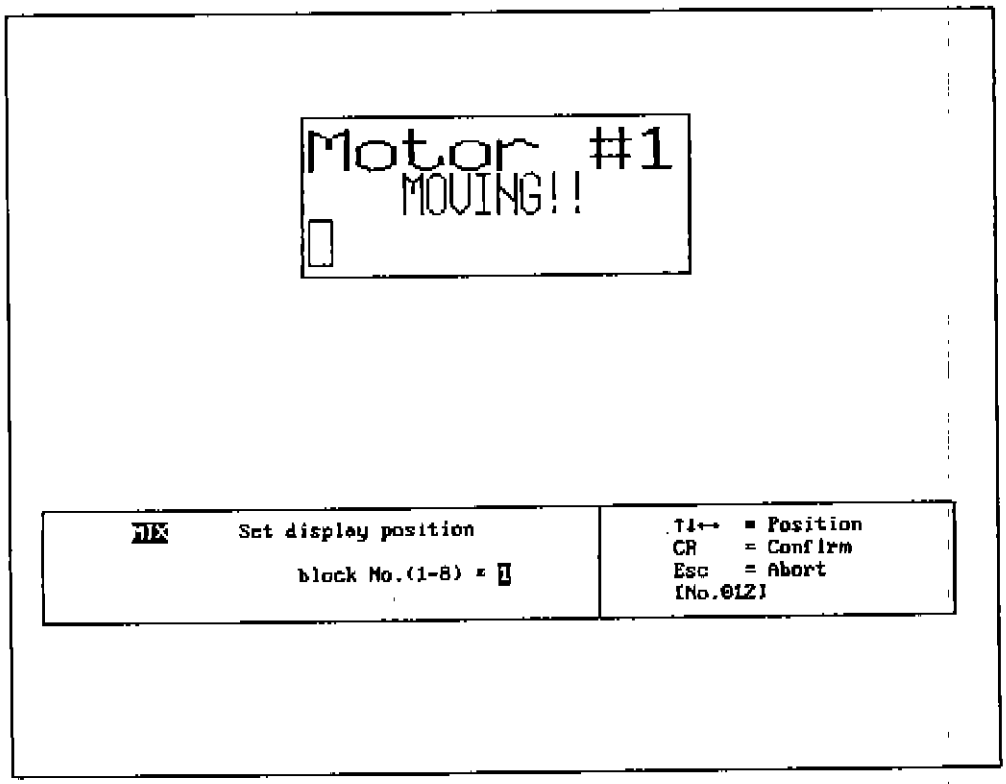
1, 2, 3... 1. Select MIXED from the Create Screen Display.



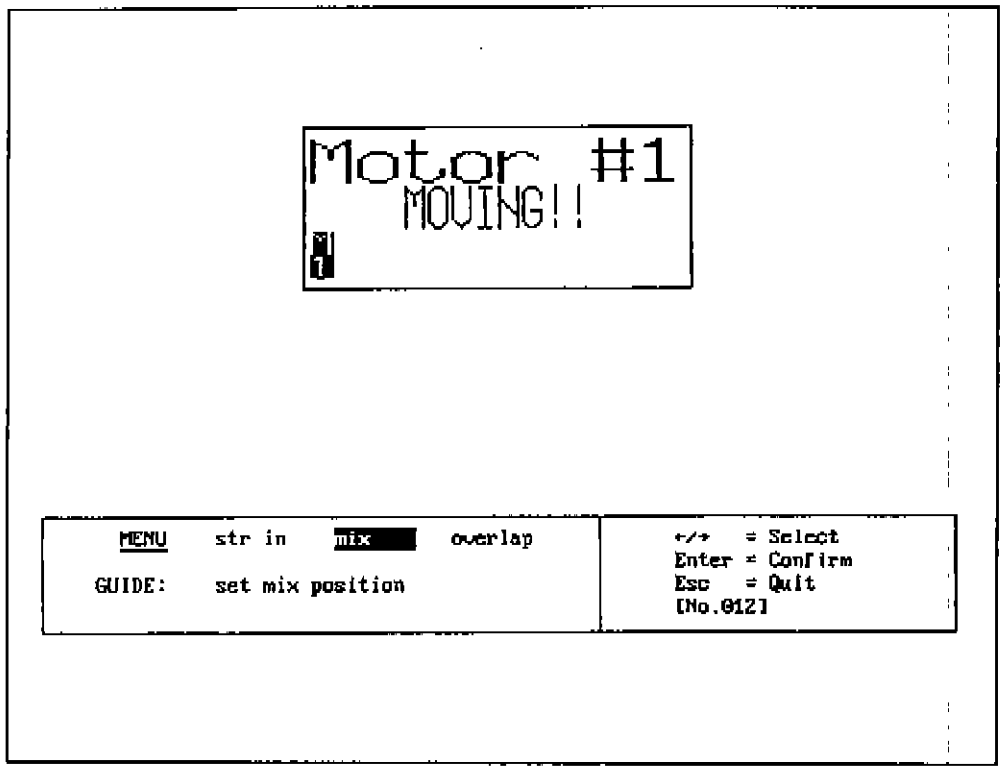
2. Input the block number for the mixed display, and then press the Enter Key.



3. Use the direction keys to move the cursor to the starting position for the mixed display, and then press the Enter Key.



4. The following screen will appear when the display block number has been set.



If, for example, block no. 4 is designated, then B4 will be displayed on the screen.

Deleting Mixed Displays

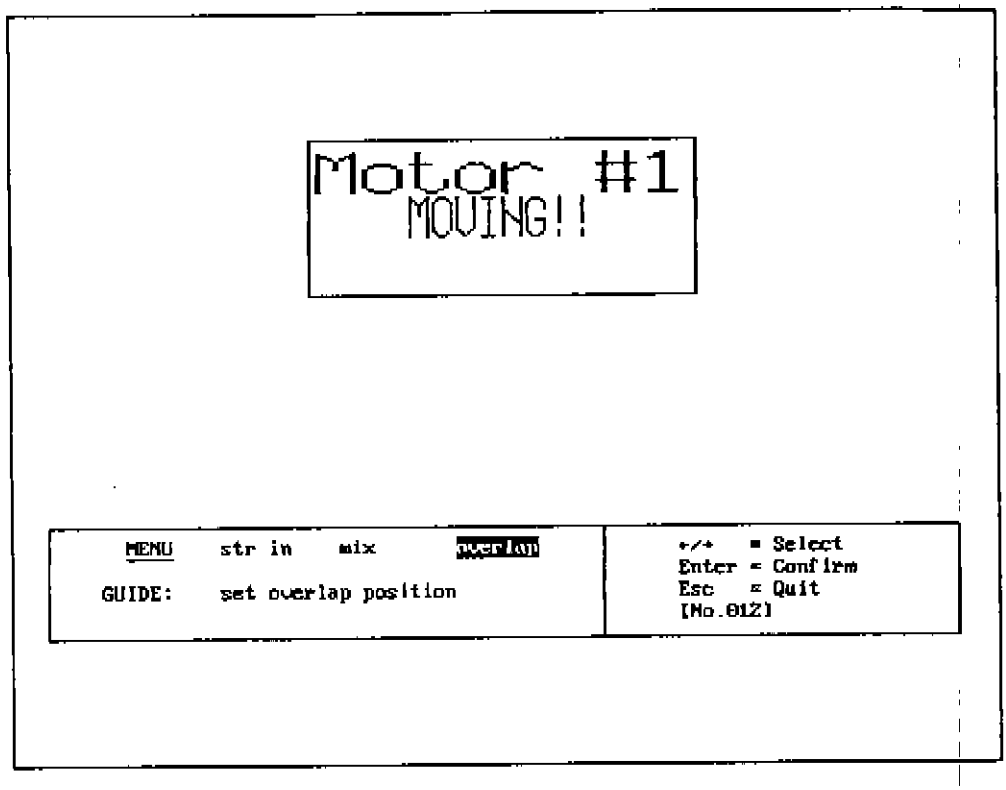
To delete a mixed display, first press F1, and then input the block number of the mixed display to be deleted and press the Enter Key. To cancel the operation, press the Escape Key. You will be returned to the previous display.

7-2-3 Overlap Displays

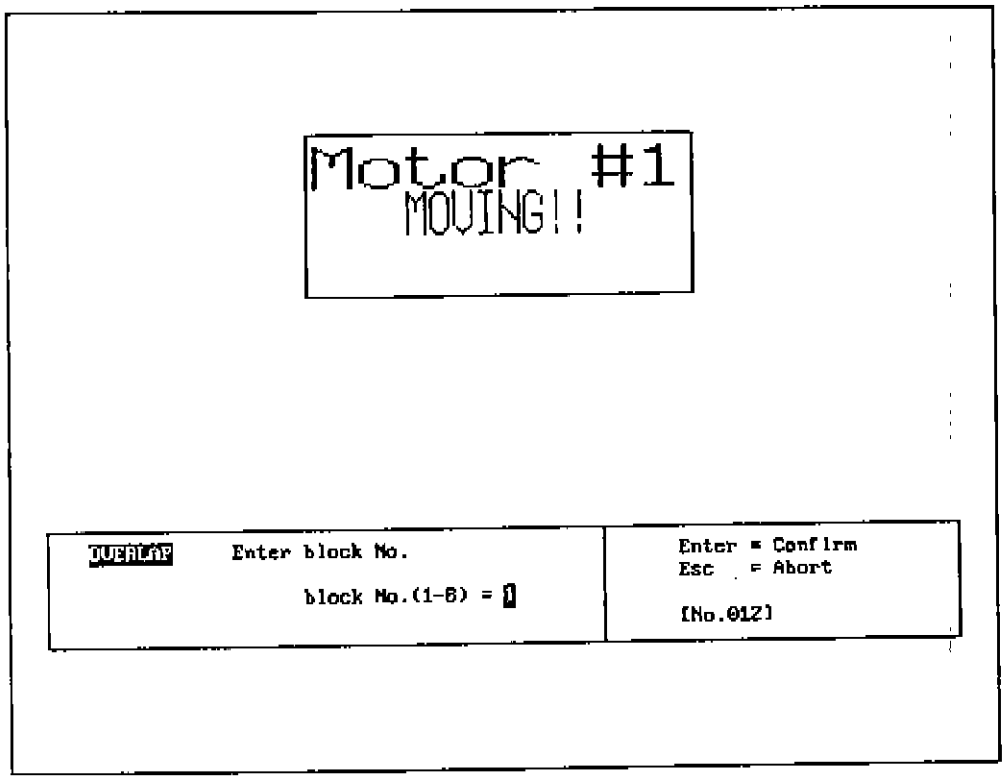
Use OVERLAP to set the display block number (1 to 8) and the starting position for the overlap displays.

Follow the steps outlined below to execute an overlap display.

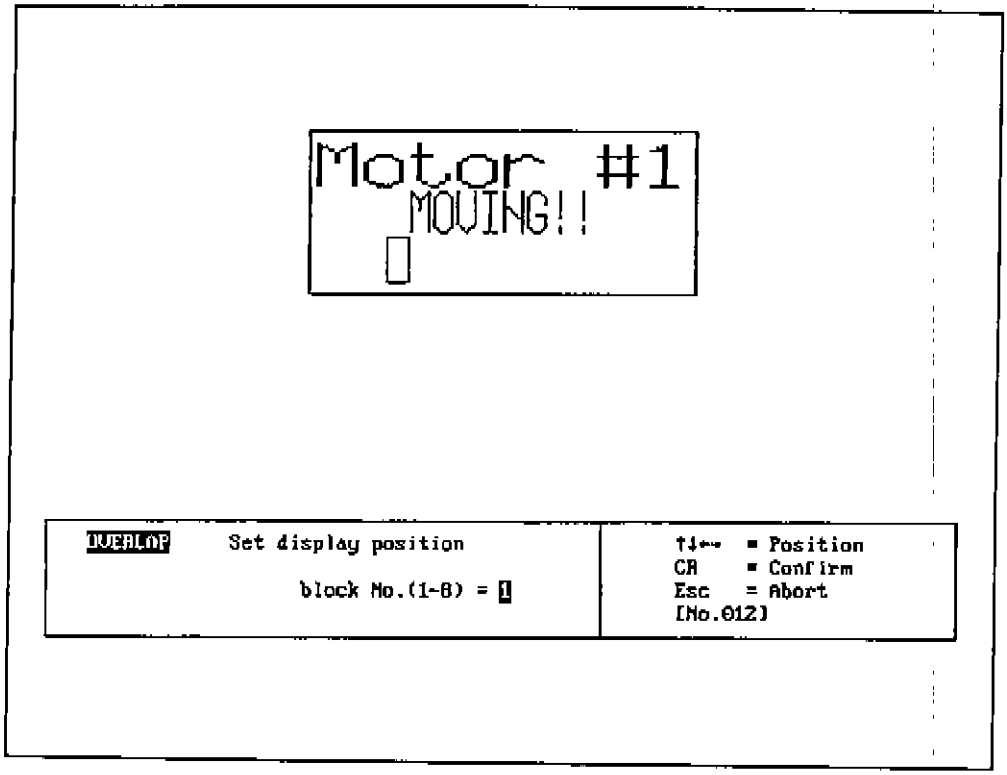
1, 2, 3... 1. Select OVERLAP from the Create Screen Display.



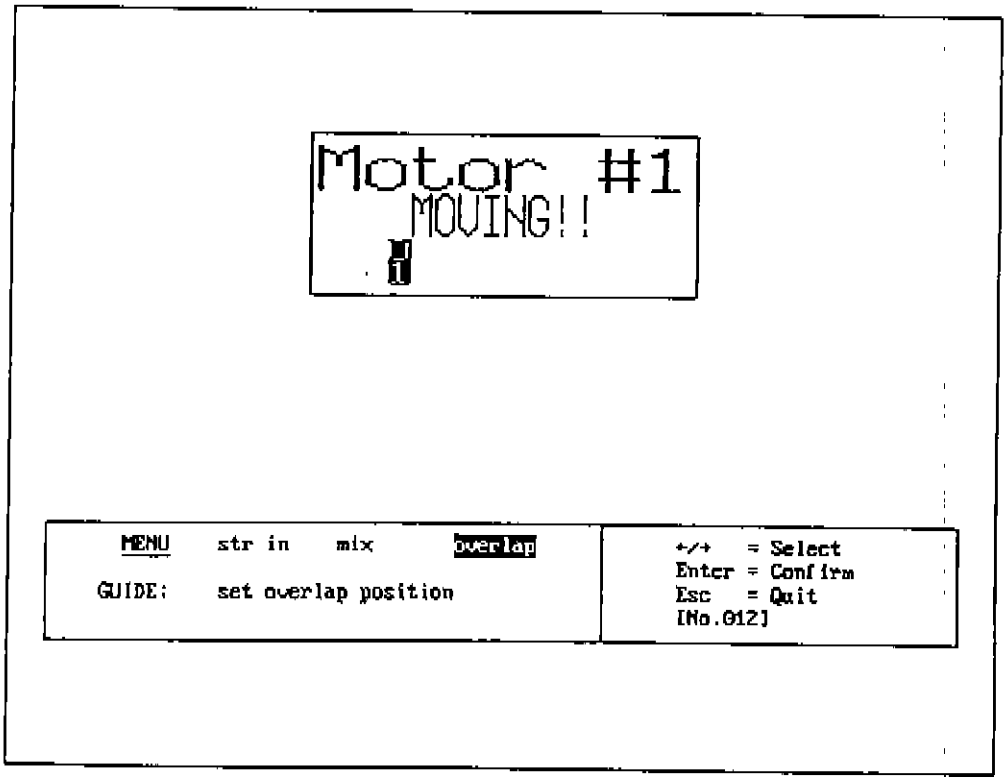
2. Input the block number for the overlap display, and then press the Enter Key.



3. Use the direction keys to move the cursor to the starting position for the overlap display, and then press the Enter Key.



4. The following screen will appear when the overlap display has been set.



If, for example, block no. 4 is designated, then B4 will be displayed on the screen.

Deleting Overlap Displays

To delete an overlap display, first press F1 ,and then input the block number of the overlap display to be deleted and press the Enter Key. To cancel the operation, press the Escape Key. You will then be returned to the previous display.

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