

SINGLE-AXIS MOTION CONTROLLER
MOTIONPACK-SG1
PERSONAL COMPUTER PROGRAMMER
OPERATING MANUAL

Upon receipt of the product and prior to initial operation, read these instructions thoroughly, and retain for future reference.



YASKAWA

MANUAL NO. TOE-C884-1.2

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This manual has been prepared for use with the NEC PC-9801 Series.

If the system is to be used with an IBM type personal computer (J3100, PC-AT, etc.), observe the following points.

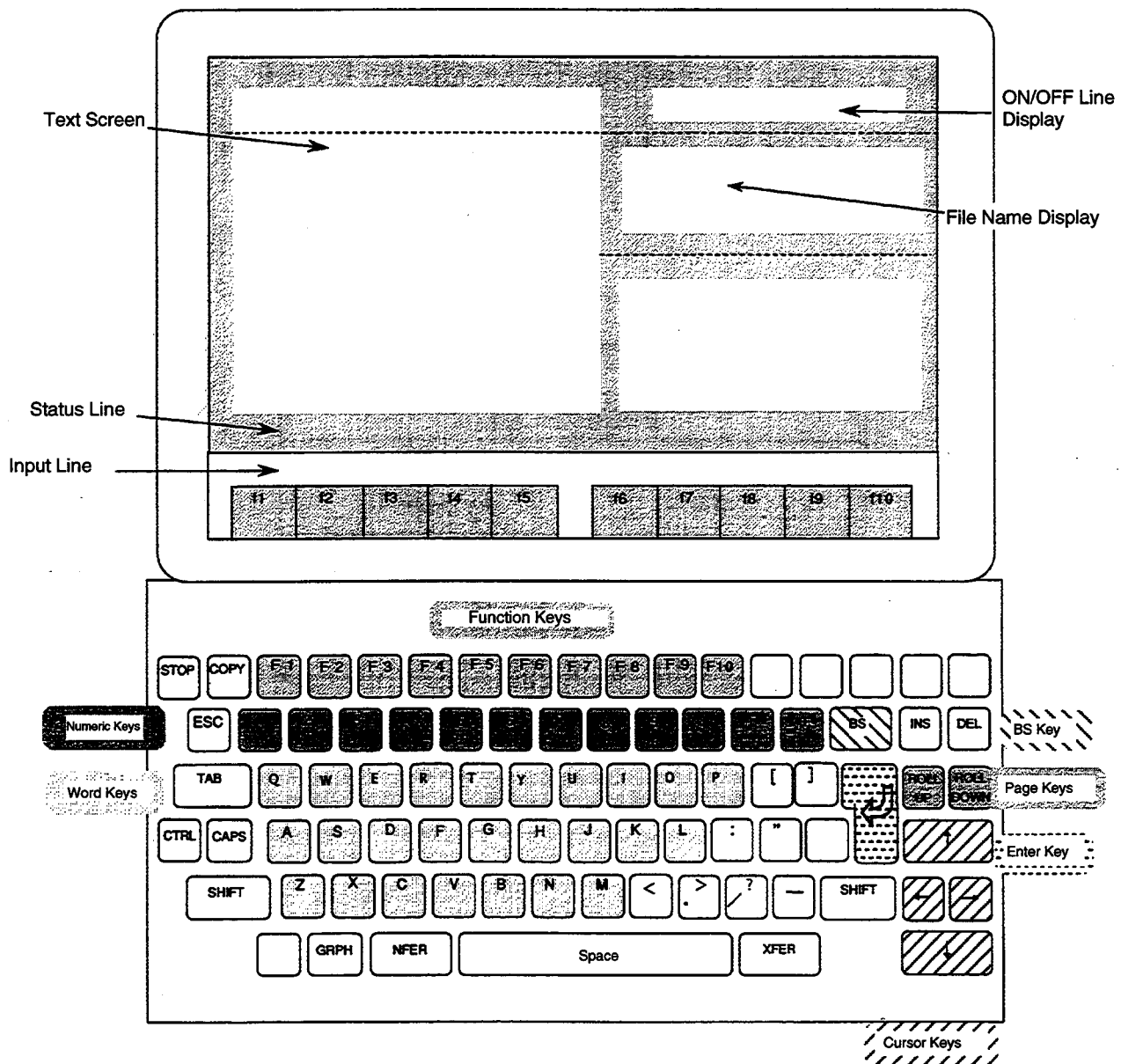
PC-9801	J3100, PC-AT, etc.
Layout of the keys on the keyboard	
Connection cable	
Enter Key RETURN KEY	Enter Key
ROLL UP Key	Pg Dn Key
ROLL DOWN Key	Pg Up Key
BS Key	
¥	\

The following manual should also be used along with this manual.

MOTIONPACK-SG1 User's Manual (Manual No. SIE-C844-1)

1 BASIC OPERATIONS AND CONNECTION

1.1 DESCRIPTION OF THE SCREENS AND KEYS



1.1.1 Screens

Text Screen

The contents of the data are displayed in this screen.

Input Line

Window for entering character strings.

Status Line

Messages are displayed on this line.

1.1.2 Keys

Word Keys [A] to [Z]

For moving to the word position. Used in the "PROGRAM" editing screen.

When the [G] or [M] key is pressed, the numeral, "00", will be added upon display.

When the [N] key is pressed, "NOP" will be displayed.

Numeric Keys [0] to [9], [.] , [+], [-]

For writing in all numerical values, such as parameters, registers.

[0] to [9] For entering numerical values.

[.] For entering the decimal point.

[+], [-] For entering the sign.

1.1 DESCRIPTION OF THE SCREENS AND KEYS

Cursor Keys Right, Left, Up, and Down Cursor Keys

For moving the cursor on the screen up, down, and to the left and right.

When the Right Cursor Key is pressed, the cursor will move to the right.

When the Left Cursor Key is pressed, the cursor will move to the left.

When the Up Cursor Key is pressed, the cursor will move upward.

When the Down Cursor is pressed, the cursor will move downward.

Page keys ROLL UP and ROLL DOWN Keys

For displaying the next or prior page with respect to the page that is currently displayed on the screen.

When the ROLL UP Key is pressed, the cursor will move to the next page.

When the ROLL DOWN Key is pressed, the cursor will move to the prior page.

When a page key is pressed continuously, the displayed page will change to earlier or subsequent pages successively.

DEL Key and Enter Key

DEL Key: When this is used with the cursor being at the head of a line, the entire line will be cleared.
 When used at a position besides the head of the line, the word at the cursor will be cleared.

Enter Key: Used for finalizing the entry.

1.1 DESCRIPTION OF THE SCREENS AND KEYS

Function keys [F1] to [F10]

When a function key is pressed, the corresponding command on the screen will be executed.

1. Press the F3 (REGISTER) Key.
f3: REGISTER will be executed.

```
***PP SYSTEM***
<<MENU>>          <<STATUS>>
11:PROGRAM
12:MP PARAMETER
13:REGISTER
14:SHIFT OFFSET
15:MAINTENANCE
16:UTILITY
17:SV PARAMETER
18:SP PARAMETER
19:
R0:
DATE : 1992/01/16
TIME : PM 1:00
YASKAWA
<<HELP MESSAGE>>
NC PROGRAM MAINTENANCE
```

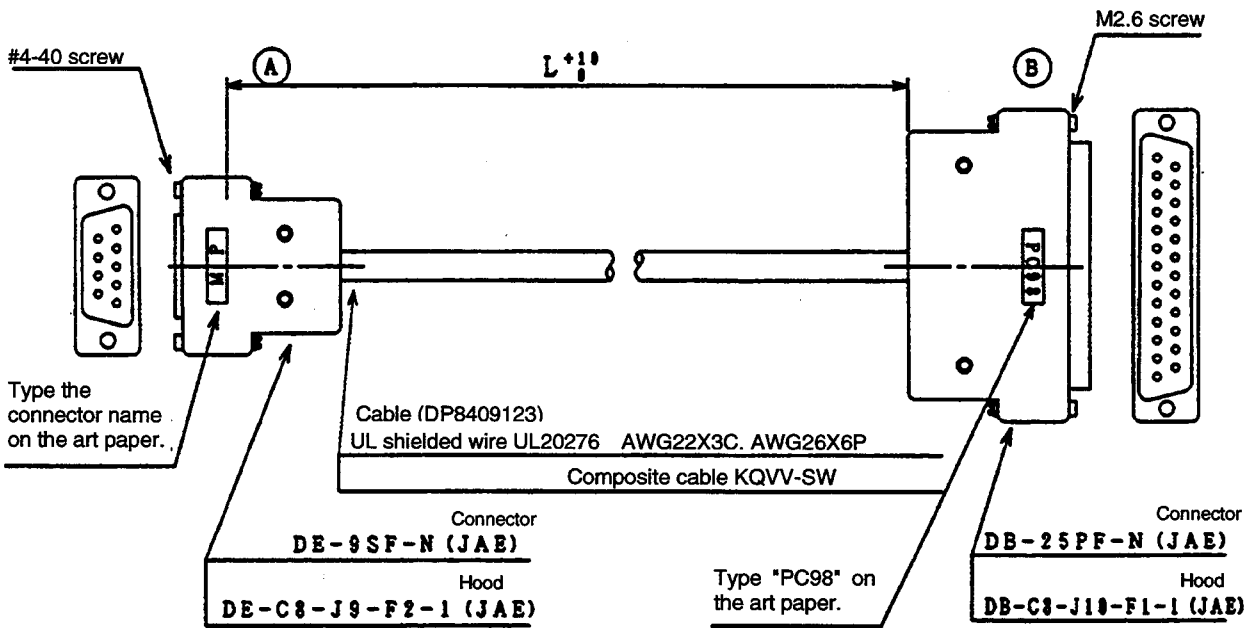
2. Press the F1 (SEA) Key.
f1: SEA will be executed.

```
***<< REGISTER >>***      ON LINE
R01= *****
R02= 30000
R03= 10000
R04= 2000
R05= 30
R06= 0
R07= 10000
R08= 0
R09= 1
R10= *****
R11= *****
R12= 0
R13= *****
R14= *****
R15= *****
R16= *****
<<key input>>
R 07= 10000
F1  F2  F3  F4  F5  F6  F7  F8  F9  F10
SEA  F0UP F0DN VERR STY
```

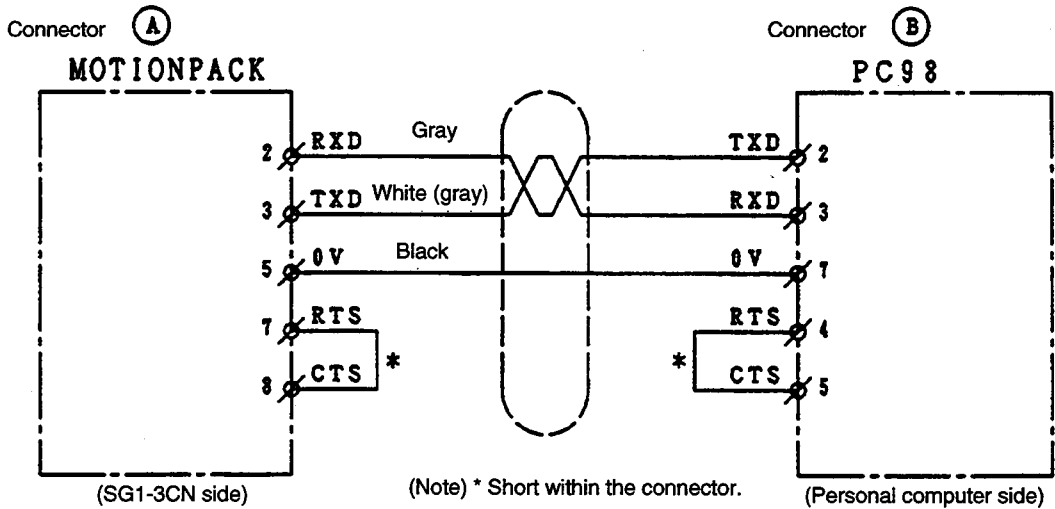
1.2 CONNECTION WITH THE PERSONAL COMPUTER

1.2 CONNECTION WITH THE PERSONAL COMPUTER

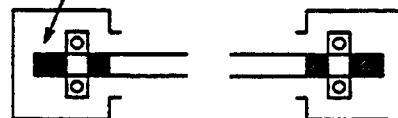
(1) MOTIONPACK-PC-9801 Series Connection Cable



Connection Diagram



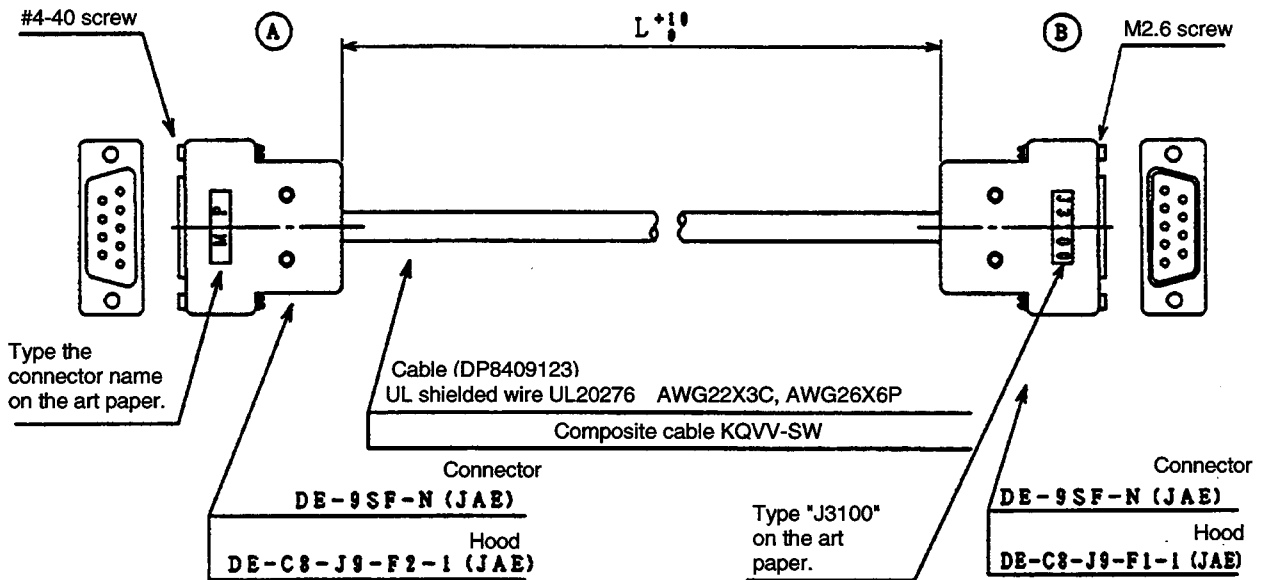
Shield wire should be bent back and fixed with the clamp.



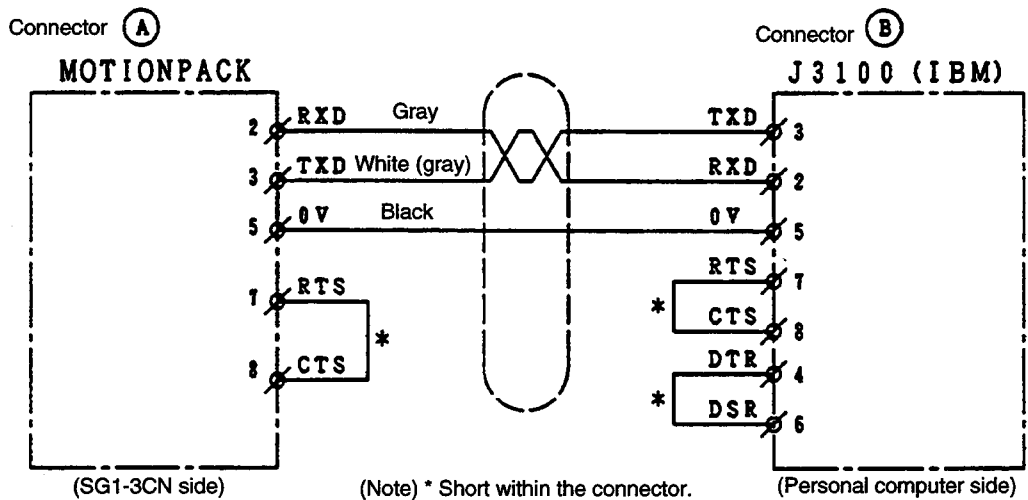
Item	Length (L(m))	Type
1	1	JEMP-W030A
2	3	JEMP-W031A
3	5	JEMP-W032A

1.2 CONNECTION WITH THE PERSONAL COMPUTER

(2) MOTIONPACK-J3100 Connection Cable

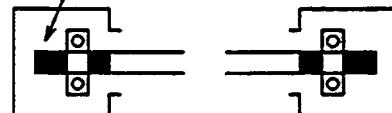


Connection Diagram



Shield wire should be bent back and fixed with the clamp.

Item	Length (L(m))	Type
1	1	JEMP-W030B
2	3	JEMP-W031B
3	5	JEMP-W032B



2 INSTALLATION, STARTING, AND EXITING OF THE PERSONAL COMPUTER PROGRAMMER

2.1 INSTALLATION

2.1.1 When a PC-9801 Series Personal Computer is to be Used

■ Items to be prepared

1. NEC PC-9801 Series personal computer unit : prepared by user.
With 3.5-inch FDD (system memory: 640 Kbytes or more)
With hard disk
2. MS-DOS Ver. 3.30 or later : prepared by user.
3. MOTIONPACK-SG1 programming software
Disk No.1 <NEC PC9801> : 1 disk
4. New floppy disk <2DD> : prepared by user.
(For backup) : 1 disk
5. Text editor : prepared by user.

■ Before starting up the personal computer programmer

1. Preparation of the backup disk
It is recommended that a backup disk be prepared before starting up the personal computer programmer. Prepare the backup disk using the DISKCOPY command, etc. of MS-DOS.
2. Incorporation of device driver
The following statement must be written in the file (CONFIG.SYS) in the user's MS-DOS system disk using the text editor, etc.

DEVICE = (Path designation) RSDRV.SYS Enter

The above driver is a device driver that is included in MS-DOS.

After designating the device driver, perform RESET and startup MS-DOS again.

■ Installation in the hard disk

Secure 1Mbyte or more of available space in the hard disk to be used and then perform the installation according to the following procedure.

Install Disk No.1 <PC-9801>.

1. Designate the hard disk directory in which the programming software is to be installed.
Example: If A is the hard drive, B is the floppy drive, and "A:¥YE¥MP" is the name of the directory in which the programming software is to be installed:
A>MD ¥YE Enter Key
A>CD ¥YE Enter Key
A>MD MP Enter Key
A>CD MP Enter Key
2. Set the Disk No.1 <PC-9801> disk in the floppy drive and set the current drive to be this floppy drive.
Example: A>B : Enter Key
3. Enter as follows to start installation in the hard disk.
Example: B>INSTALL A : Enter Key

2.1.2 When an IBM Type Personal Computer is to be Used

■ Items to be prepared

1. IBM type personal computer (J3100, PC-AT, etc.) : prepared by user.
With 3.5-inch FDD (system memory: 640 Kbytes or more)
With hard disk
2. MS-DOS Ver. 3.30 or later (English version) : prepared by user.
3. MOTIONPACK-SG1 programming software
Disk No.2 <J3100/IBM> : 1 disk
4. New floppy disk <2DD> : prepared by user.
(For backup.) : 1 disk
5. Text editor : prepared by user.

■ Before starting up the personal computer programmer

1. Preparation of the backup disk
It is recommended that a backup disk be prepared before starting up the personal computer programmer. Prepare the backup disk using the DISKCOPY command, etc. of MS-DOS.
2. Incorporation of device driver
The following statement must be written in the file (CONFIG.SYS) in the user's MS-DOS system disk using the text editor, etc.

DEVICE = (Path designation) ANSI.SYS Enter

The above driver is a device driver that is included in MS-DOS.
After designating the device driver, perform RESET and startup MS-DOS again.

■ Installation in the hard disk

Secure 1Mbyte or more of available space in the hard disk to be used and then perform the installation according to the following procedure.

Install Disk No.2 <J3100/IBM>.

1. Designate the hard disk directory in which the programming software is to be installed.
Example: If A and B are the floppy drives, C is the hard drive, and "C:\YE\MP" is the name of the directory in which the programming software is to be installed:
C>MD\YE Enter Key
C>CD\YE Enter Key
C>MD MP Enter Key
C>CD MP Enter Key
2. Set the [Disk No.2 <J3100 / IBM>] disk in a floppy drive and set the current drive to be this floppy drive.
Example: C>A: Enter Key
3. Enter as follows to start installation in the hard disk.
Example: A>INSTALL1 C: Enter Key

2.2 STARTING

- If the program is to be run from the floppy disk
 1. Insert the [Disk No.1 <PC-9801>] disk in the floppy drive if a PC-9801 Series computer is to be used. Insert the [Disk No.2 <J3100/IBM>] disk in the floppy drive if an IBM type computer is to be used.
 2. Set the current drive to be the floppy disk drive.
 3. Enter "PP" and press the Enter Key.

- If the program is to be run from the hard disk
 1. Set the hard disk directory in which the programming software was installed to be the current directory.
 2. Enter "PP" and press the Enter Key.

2.3 INITIAL SCREEN

- Designation of the save/load destination data directory
If the designated directory is to be changed to "A:¥DATA," enter "A:¥DATA" after "SET MP_DATA=..>=" and press the Enter Key.

- Designation of the drive to be formatted and the disk type
If the A drive is to be formatted as 2HD, enter "A:2HD" after "SET FORMAT_DRIVE=>=" and press the Enter Key.

```
· · MOTIONPACK DATA / FORMAT DERECTORY EDIT · ·  
SET MP_DATA=..>=  
SET FORMAT_DRIVE=>=
```

If just the Enter Key is pressed without performing the designation above, the previous settings will be made effective and the contents will not be changed. However, if no designations are made immediately after installation, the save/load destination will be the directory from which the software was started up.

Since no designations are made for drive and disk type immediately after installation, an error will occur when FORMAT is executed without designation. Also, the following message will be displayed when the contents are changed.

Change path OK? (yes ··· 'Y', no ··· 'Return')

If you want to change, enter "Y". If you do not want to change and the previous setting is to be used, press the Enter Key.

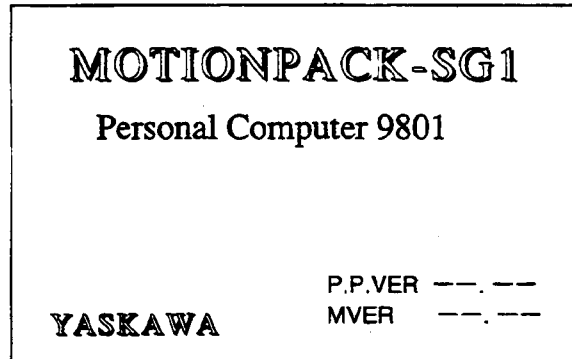
Memory must be secured for the above data and format drive designations since they are set as environmental variables. If there is not enough memory, the designated data will be invalid and the following will occur.

- The subdirectory (PPEXE) of the directory from which the personal computer P.P. was started is designated as the backup and load destination data directory.
- Formatting of a disk will be ineffective.

■ Title screen

The version of MOTIONPACK is indicated next to "MVER" and the design version of the personal computer programmer is indicated next to "P.P.VER."

- Due to communication check with MOTIONPACK, the indication of the version will be delayed by about 10 seconds in the offline mode.
- The title screen will disappear automatically.

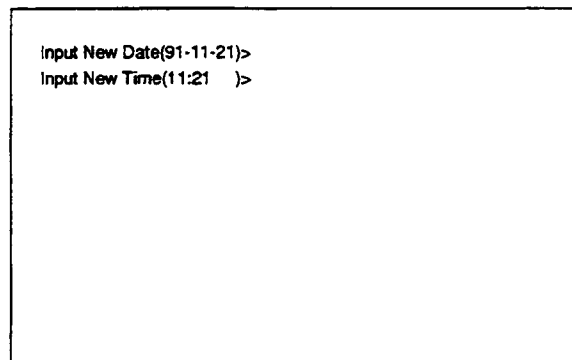


■ Date and time settings

This screen will be displayed only in the online condition. In the offline condition, this screen will not be displayed and the display will be switched to the next menu screen.

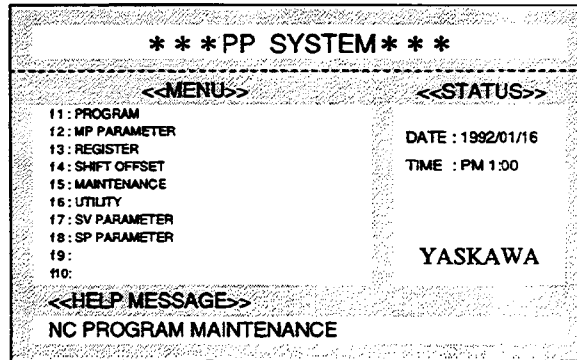
Enter the date in the form, "91-11-21", and press the Enter Key.

Enter the time in the form, "11:21", and press the Enter Key.



■ Menu screen

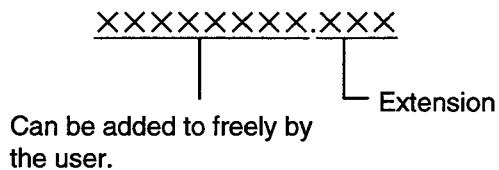
- When the f1 Key is pressed, the Program Editing Screen will be displayed.
- When the f2 Key is pressed, the Control Parameter Editing Screen will be displayed.
- When the f3 Key is pressed, the Register Editing Screen will be displayed.
- When the f4 Key is pressed, the Shift/Offset Editing Screen will be displayed.
- When the f5 Key is pressed, the Maintenance Editing Screen will be displayed.
- When the f6 Key is pressed, the Utility Editing Screen will be displayed.
- When the f7 Key is pressed, the Servo Parameter Editing Screen will be displayed.
- When the f8 Key is pressed, the Spindle Parameter Editing Screen will be displayed.



2.4 FILES

The loading and saving of program files, parameter files, etc. are enabled only with the drives started up by the system.

The file names for these operations take on the following form:



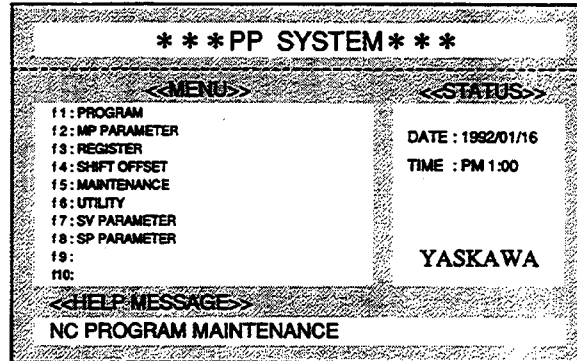
The types of extension are as follows:

- NC : Program
- PRM : Control parameter
- REG : Register
- SFT : Shift
- OFF : Offset
- SVP : Servo parameter
- SPP : Spindle parameter

The extension is prepared by the system and does not need to be entered.

2.5 EXITING

- (1) When the PP SYSTEM MENU Screen is displayed, press the ESC Key.
- (2) The following message will be displayed.
MENU QUIT? (Y/N)
Enter "Y" to complete the program.



3 PROGRAMMING OPERATIONS

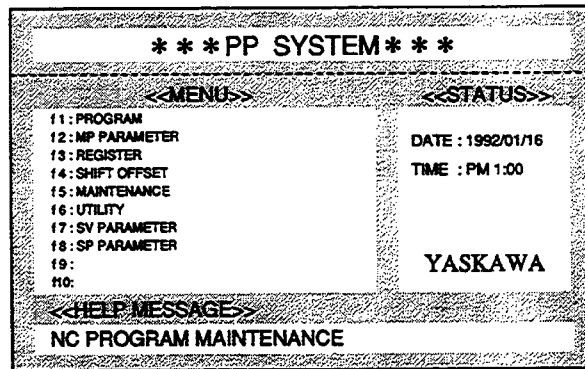
The changing, uploading, and downloading of the program are performed as explained below.

3.1 PROGRAMMING OPERATIONS (ONLINE)

When a changing operation is performed online, the contents of the MOTIONPACK program will be changed immediately. Thus the contents of the MOTIONPACK program and the contents of the program in the editing screen will be matched.

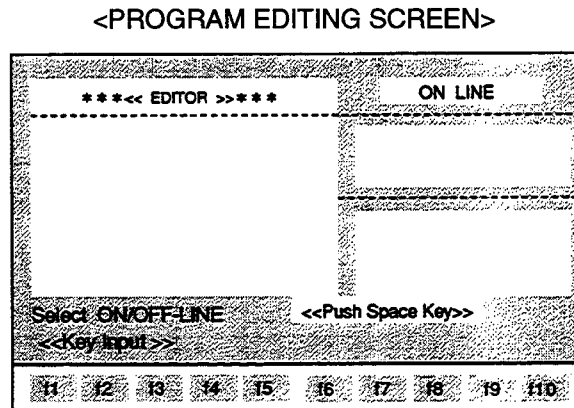
3.1.1 Basic Operations

1. Select "PROGRAM" from the MENU Screen and press the f1 Key.
The Program Editing Screen will be displayed.



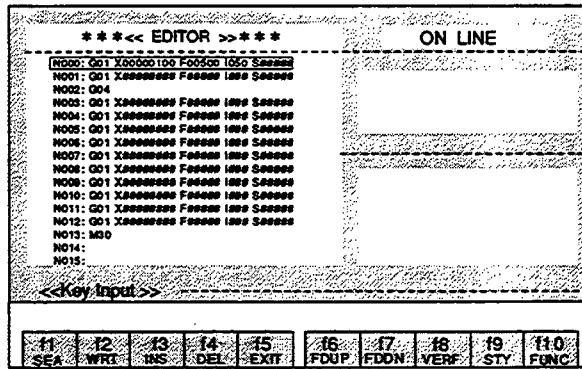
2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.



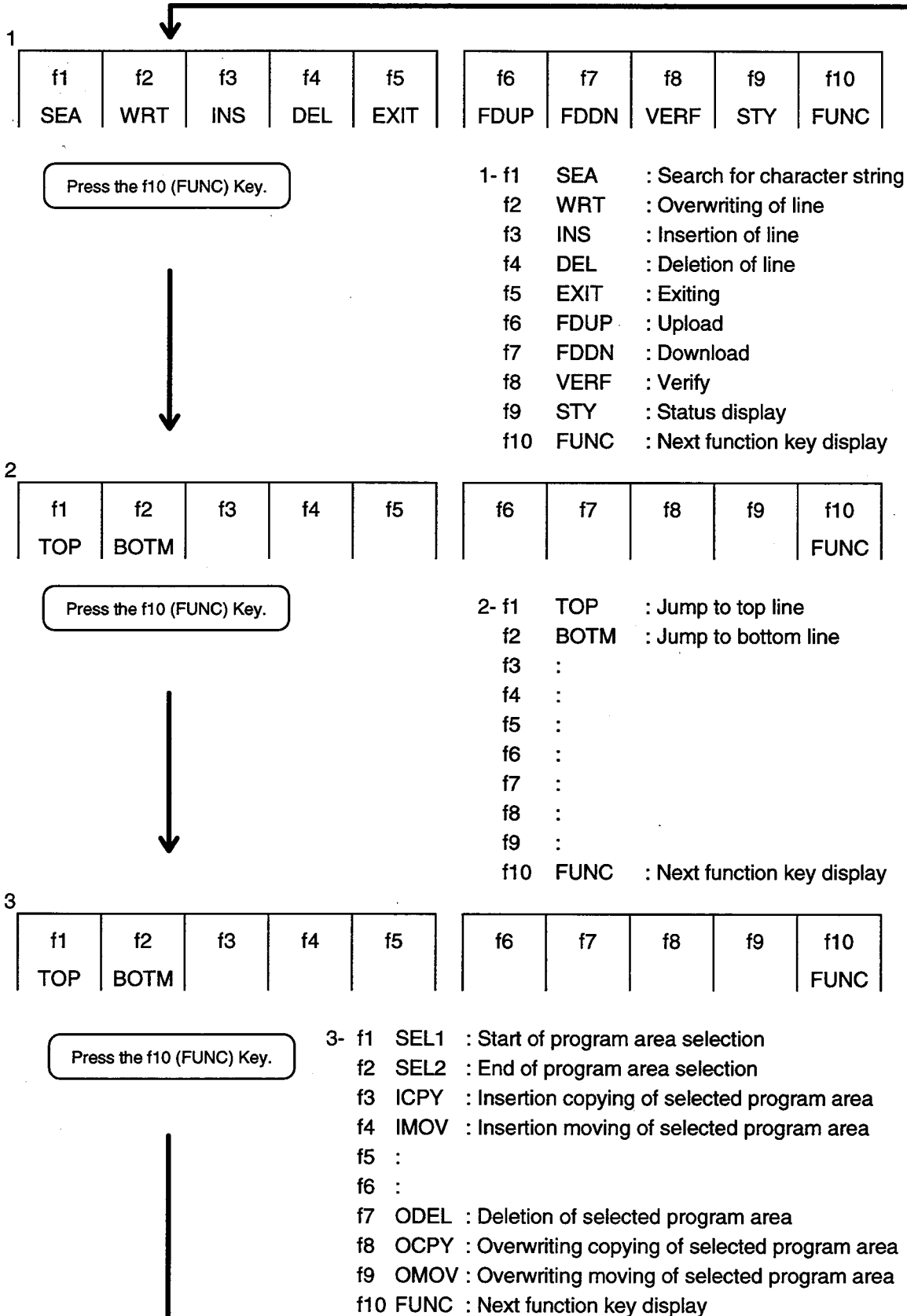
3.1 PROGRAMMING OPERATIONS (ONLINE)

The contents of the program set in MOTIONPACK will be displayed.
The N000 to N999 programs can be monitored by pressing the ROLL UP Key.



3.1 PROGRAMMING OPERATIONS (ONLINE)

3.1.2 Explanation of the Function Keys



3.1 PROGRAMMING OPERATIONS (ONLINE)

3.1.3 Details of the Function Keys

■ 1 - f1 (SEA) Search for character string

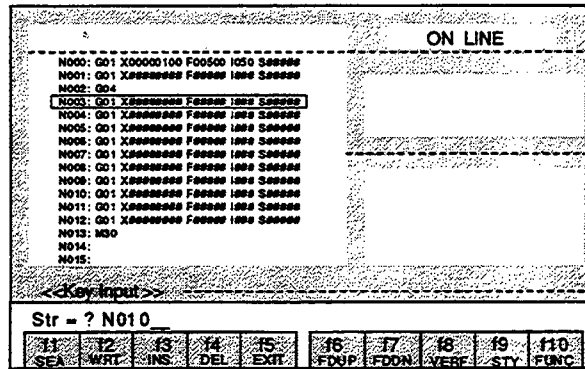
The designated character strings are searched for from the current cursor position to the designated position. There are two searching methods; line number designation and word designation.

< Line number designation >

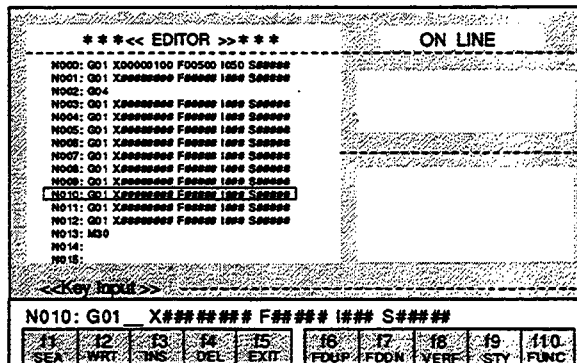
1. Press the f1 (SEA) Key.

The message, "Str=?", will be displayed at the Input Line.

2. Enter "N10" in the Input Line and press the Enter Key.



The cursor will move to the line of N10.

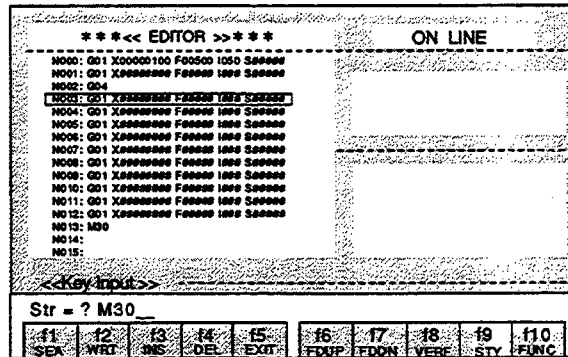


3.1 PROGRAMMING OPERATIONS (ONLINE)

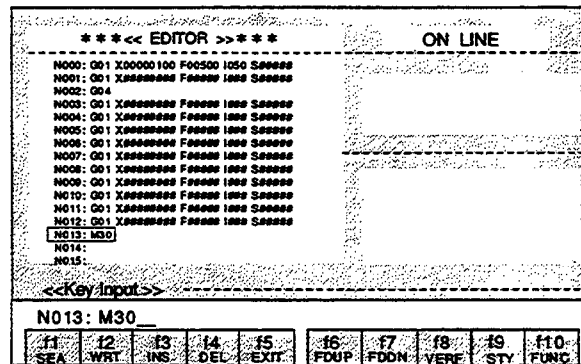
< Word designation >

The line containing the designated word is searched for from the next line after the cursor position to the last line. If a match is found, the cursor will move to the corresponding line. If no matches are found, the "not found" message will be displayed.

1. Press the f1 (SEA) Key.
The message, "Str=?", will be displayed at the input line.
2. Enter "M30" in the Input Line and press the Enter key.



The cursor will move to the line of M30.

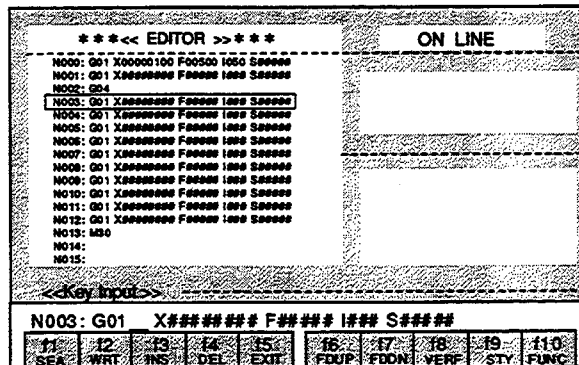


3.1 PROGRAMMING OPERATIONS (ONLINE)

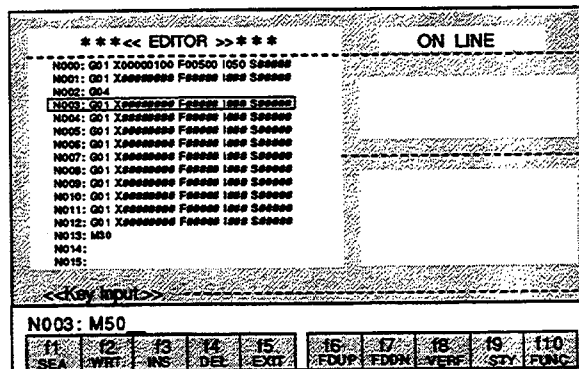
■ 1 - f2 (WRT) Overwriting of line

The contents of the Input Line are written into the cursor position.

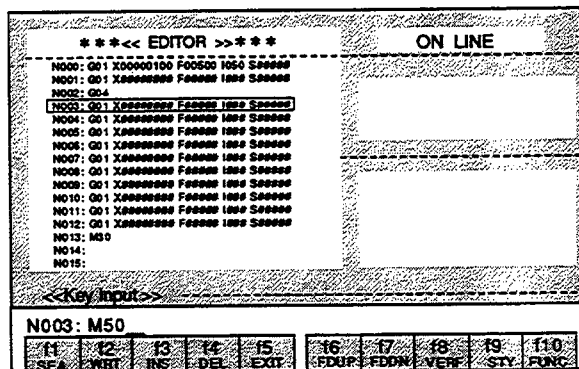
1. When "N003:G01X*****F*****I****S*****" is to be rewritten as "N003:M50", press the f4 (DEL) Key or the DEL Key.



2. Enter "M50" following the "N003:" in the Input Line.
Press the f2 (WRT) Key.



The line will be rewritten as "N003:M50".



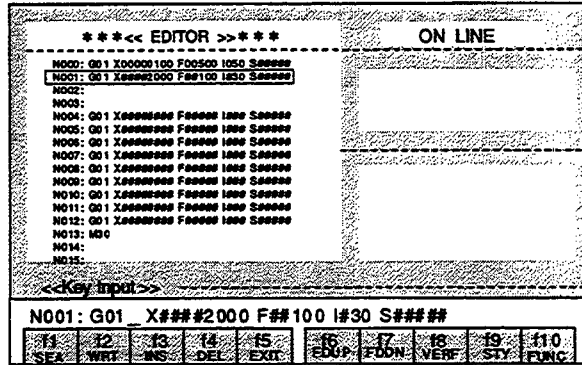
Note: The original program will be lost once rewriting is performed.

3.1 PROGRAMMING OPERATIONS (ONLINE)

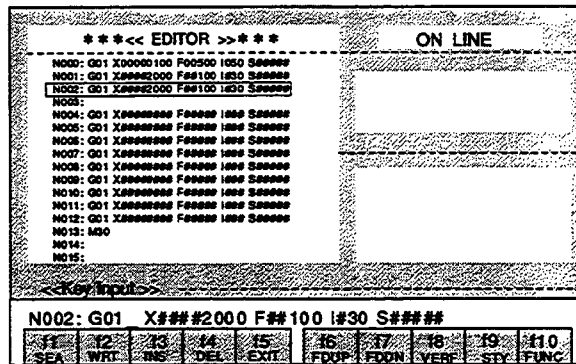
■ 1 - f3 (INS) Insertion of line

The data at the Input Line is inserted in the line at which the cursor is positioned. Insertion can be performed up to the position with the blank line.

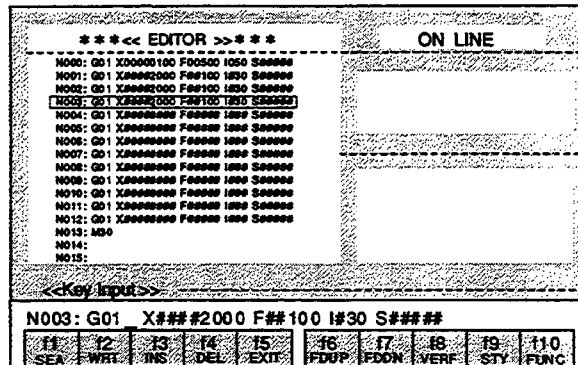
1. Enter "G01 X####2000F##100 I#30 S#####" and press the f3 (INS) Key.



The data of the Input Line will be inserted at N001.



2. When the f3 (INS) Key is pressed again, the same data will be inserted at N002.

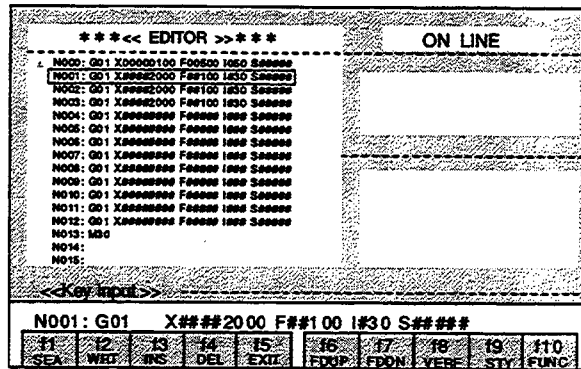


3.1 PROGRAMMING OPERATIONS (ONLINE)

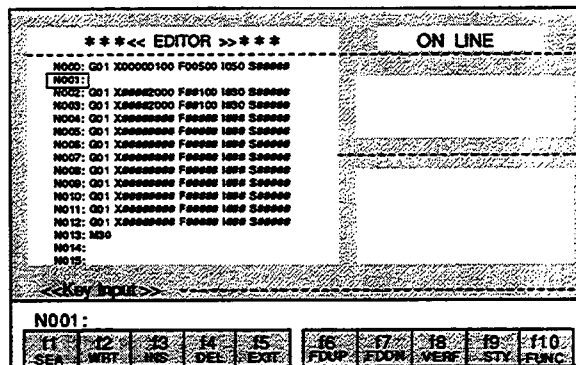
■ 1 - f4 (DEL) Deletion of line

The line at which the cursor is positioned is deleted.

Set the cursor at N001 and press the f4 (DEL) Key.



The data at N001 will be deleted.

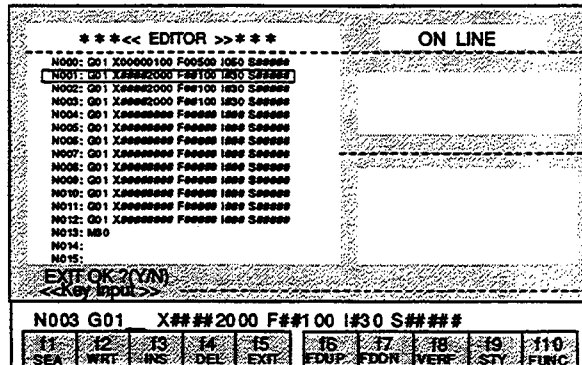


3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 1 - f5 (EXIT) Exiting

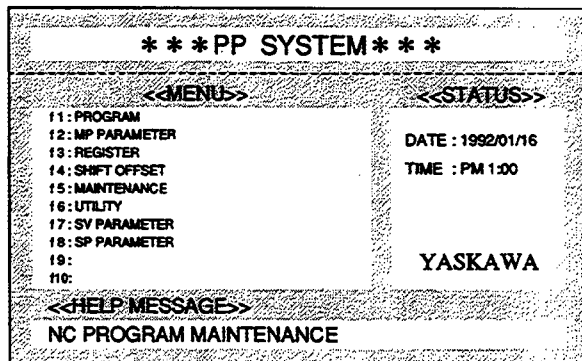
1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.



When "Y" is entered, editing will be completed and the display will return to the MENU Screen.

When a character other than "Y" is entered, editing will continue.



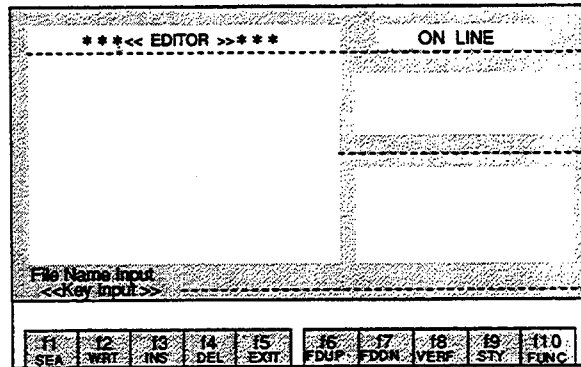
3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 1 - f6 (FDUP) Upload

A program is read in from MOTIONPACK.

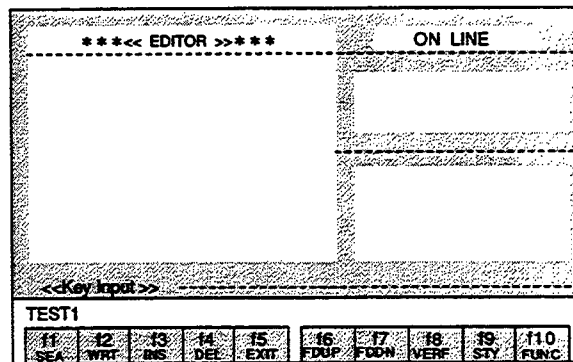
1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.



2. Enter the file name and Press the Enter Key.

Uploading will begin.



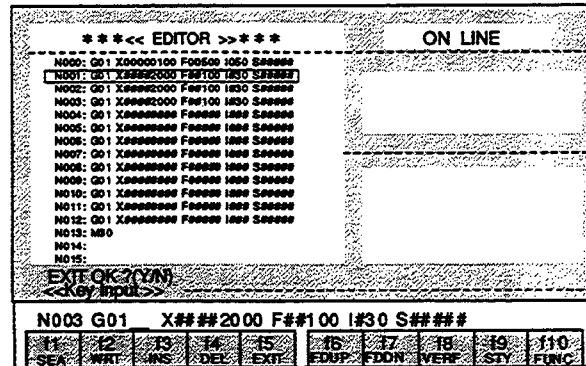
3.1 PROGRAMMING OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

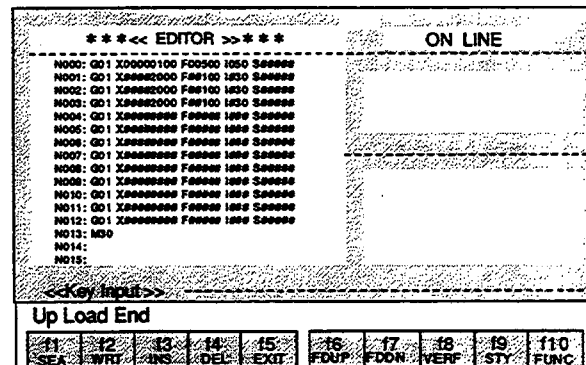
At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.



3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line.



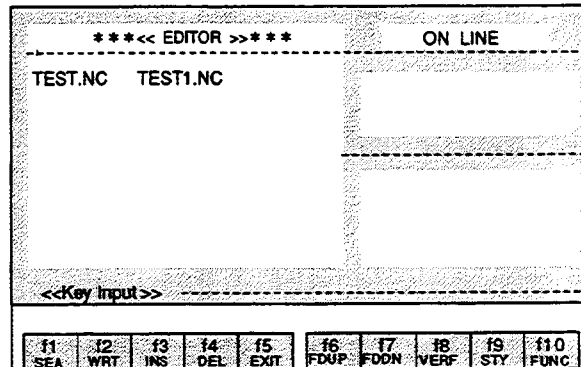
3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 1 - f7 (FDDN) Download

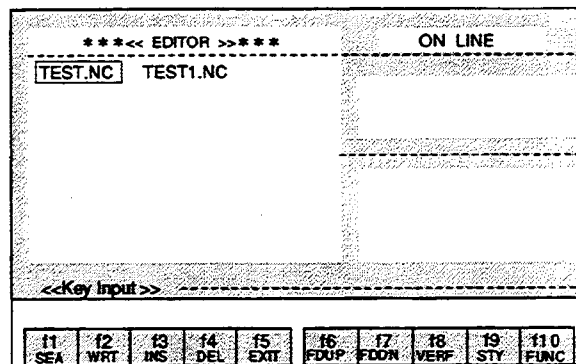
A program is written into MOTIONPACK.

1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.



2. Select the file name using the Cursor Keys and press the Enter Key.
Downloading will begin.



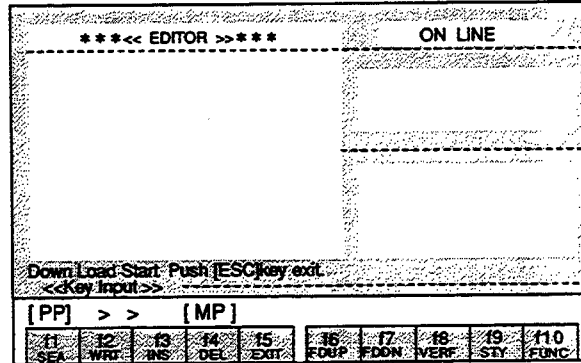
3.1 PROGRAMMING OPERATIONS (ONLINE)

During downloading, the following messages are displayed:

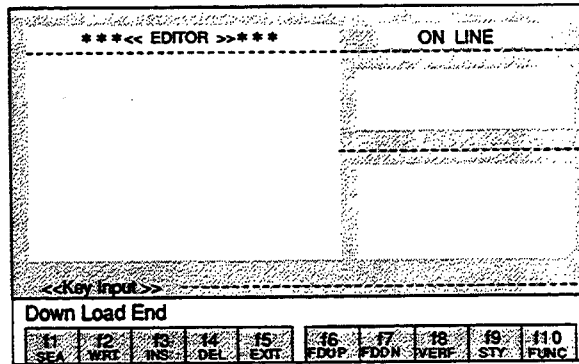
At the Status Line, "Down Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.



3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line .



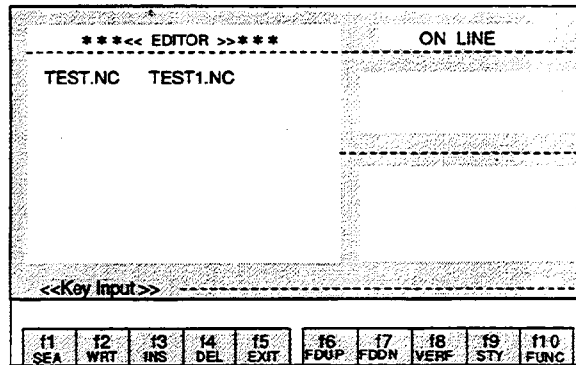
3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 1 - f8 (VERF) Verify

The MOTIONPACK program is verified with the program of the designated file.

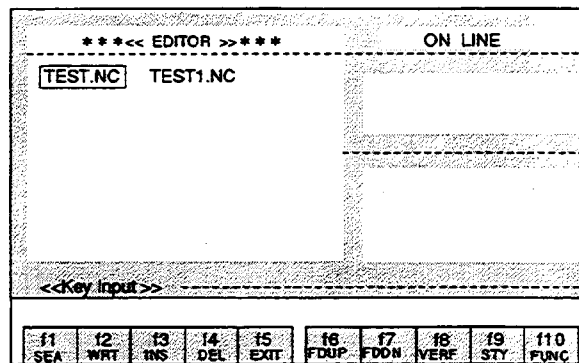
1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.



2. Select the file name using the Cursor Keys and press the Enter Key.

The MOTIONPACK program is verified with the program in the selected file.



3.1 PROGRAMMING OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:

In the Text Screen, the contents of the MOTIONPACK program will be displayed.

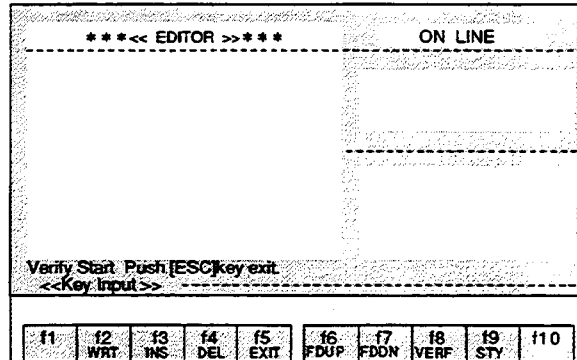
At the Input Line, the contents of the program in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification.

The "Verify End" message will be displayed after completing verification.

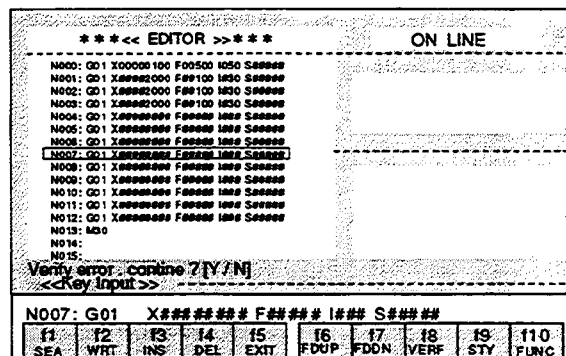
Verification will be interrupted when the ESC Key is pressed during verification.



- If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.



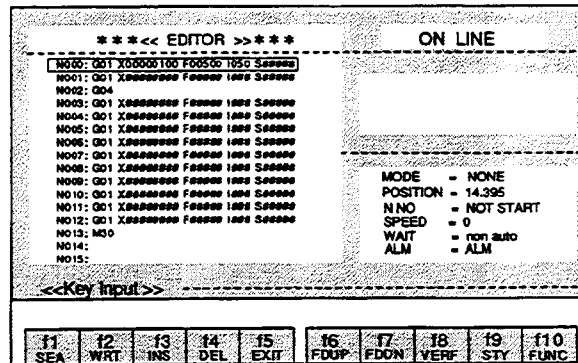
3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 1 - f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

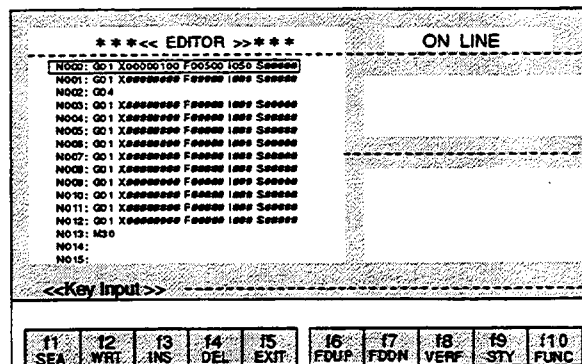
1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.



2. Press the f9 (STY) Key again.

The status display will disappear.

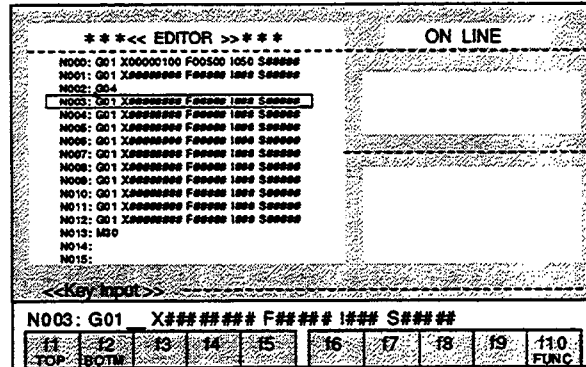


3.1 PROGRAMMING OPERATIONS (ONLINE)

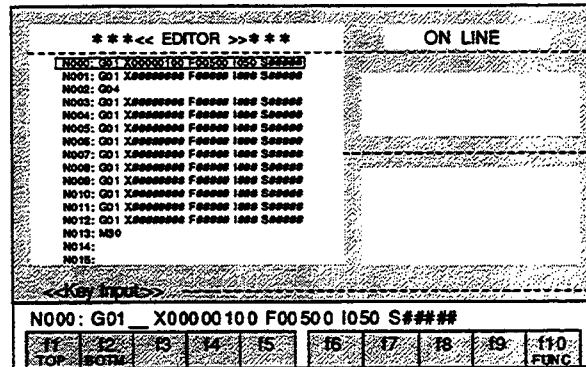
3.1.4 Details of the Function Keys of Sub-program

■ 2 - f1 (TOP) Jump to top line

When the f1 (TOP) Key is pressed, the cursor will move to the first line which is not blank. If all lines are blank, the cursor will move to the first line (N000).



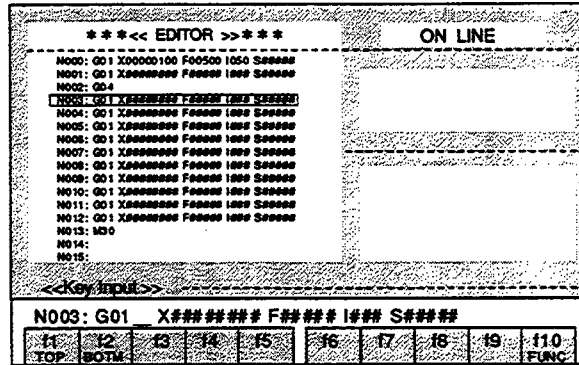
The cursor will move to N000, which is the first line.



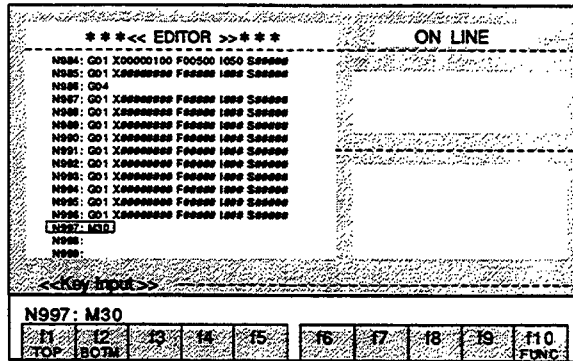
3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 2 - f2 (BOTM) Jump to bottom line

When the f2 (BOTM) Key is pressed, the cursor will move to the last line which is not blank. If all lines are blank, the cursor will move to the bottom line (N999).



The cursor will move to N997, which is the last line.



3.1 PROGRAMMING OPERATIONS (ONLINE)

3.1.5 Details of the Function Keys of Sub-sub-program

- 3 - f1 (SEL1) Start of program area selection
- f2 (SEL2) End of program area selection

Start of program area selection

When the f1 (SEL1) Key is pressed, the position at which the cursor is positioned becomes the first line of the selected program area. The selected program area is highlighted as the cursor is moved. This selection can be performed in both upward and downward directions.

End of program area selection

When the f2 (SEL2) Key is pressed, the position at which the cursor is positioned becomes the last line of the selected program area. When the cursor is moved and the f2 (SEL2) Key is pressed again, the last line of the selected program is changed.

When the f2 (SEL2) Key is pressed when program area selection is not being performed, the "select error" error message will be displayed.

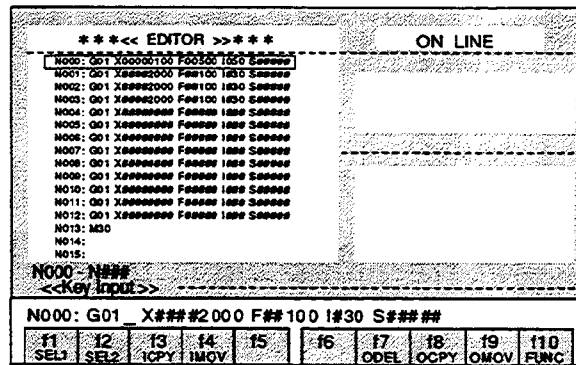
Interruption of program area selection

Program area selection will be interrupted when the f1 (SEL1) Key is pressed during program area selection.

1. Press the f1 (SEL1) Key.

The first line of the selected program area will be displayed at the Status Line.

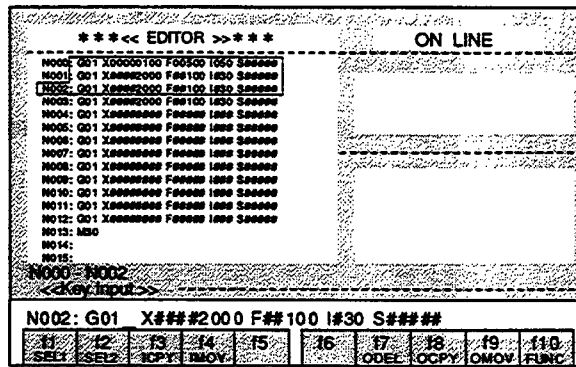
The cursor will move down by 1 line each time the Down Cursor Key is pressed.



3.1 PROGRAMMING OPERATIONS (ONLINE)

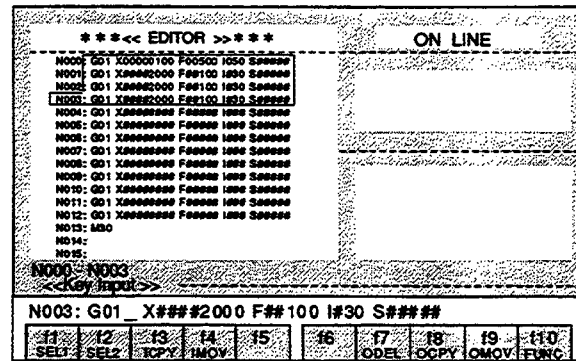
2. When the f2 (SEL2) Key.

The first and last lines of the selected program area will be displayed at the Status Line.



When the Down Cursor Key is pressed further, the cursor will move by the number of times the key is pressed.

When the f2 (SEL2) Key is pressed, the last line of the selected program area is changed.

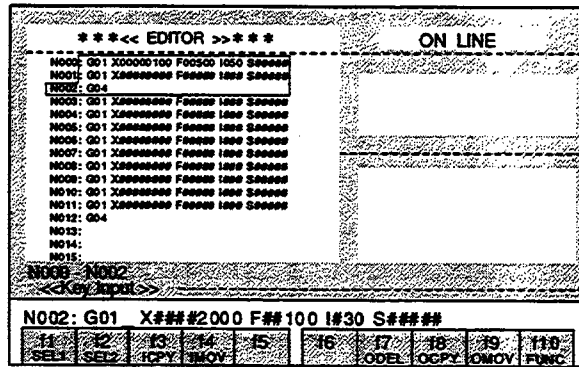


3.1 PROGRAMMING OPERATIONS (ONLINE)

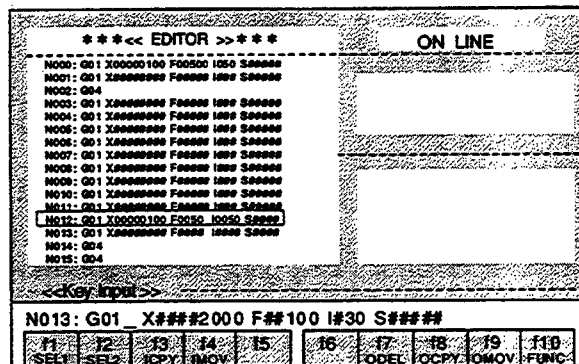
■ 3 - f3 (ICPY) Insertion copying of selected program area

When program area selection is performed and the f3 (ICPY) Key is pressed upon moving the cursor to the position to which the selected program area is to be copied, the selected program area will be copied. At the same time, the program area selection will be canceled.

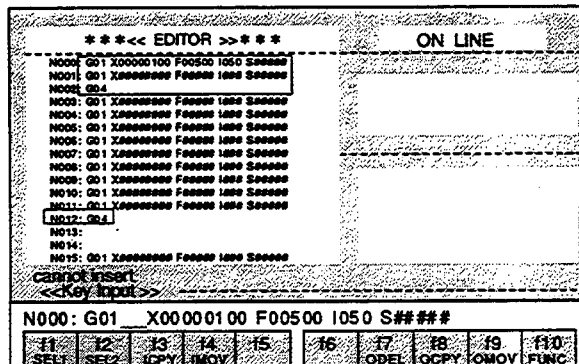
Move the cursor to "N012" and press the f3 (ICPY) Key.



The program from N000 to N002 is copied and inserted at N012 line and below.



If an adequate copying area is not secured, the "cannot insert" error message will be displayed at the Status Line.

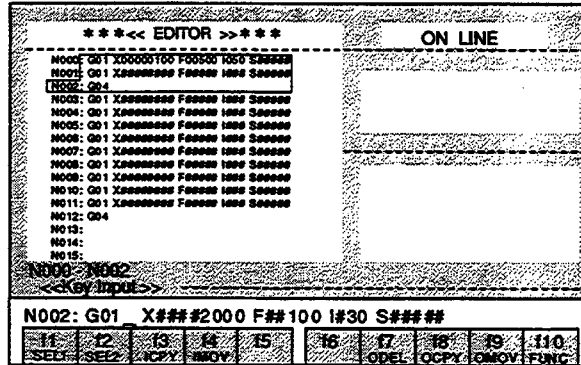


3.1 PROGRAMMING OPERATIONS (ONLINE)

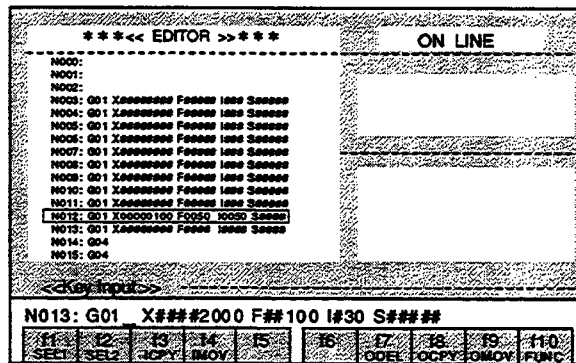
■ 3 - f4 (IMOV) Insertion moving of selected program area

When program area selection is performed and the f4 (IMOV) Key is pressed upon moving the cursor to the position to which the selected program area is to be moved, the selected program area will be moved. At the same time, the program area selection will be canceled.

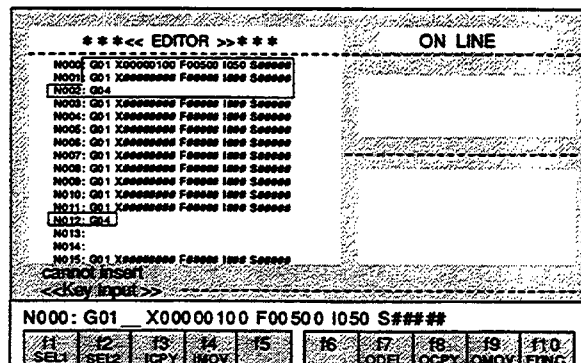
Move the cursor to "N012" and press the f4 (IMOV) Key.



The program from N000 to N002 will be moved as a block to N012 line and below.



If an adequate moving area is not secured, the "cannot insert" error message will be displayed at the Status Line.

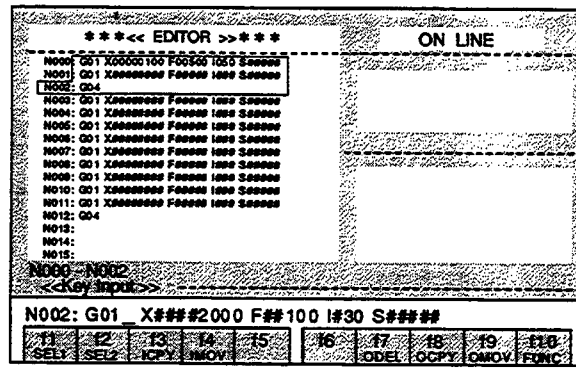


3.1 PROGRAMMING OPERATIONS (ONLINE)

■ 3 - f7 (ODEL) Deletion of selected program area

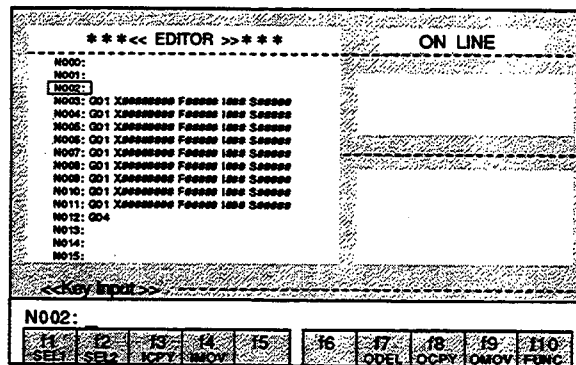
All of the lines of the selected program area are deleted.

At the same time, the program area selection will be canceled.



Press the f7 (ODEL) Key.

The selected program from N000 to N002 will be deleted.



3.1 PROGRAMMING OPERATIONS (ONLINE)

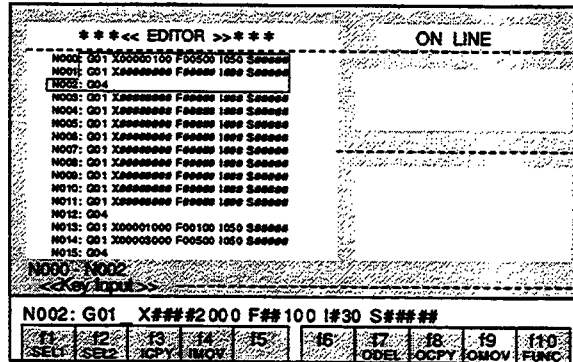
■ f8 (OCPY) Overwriting copying of selected program area

All of the lines of the selected program area are copied into the cursor position.

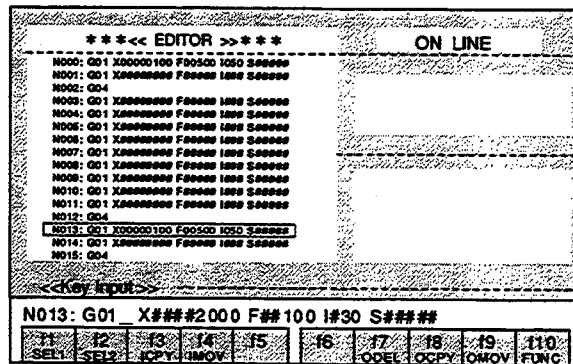
At the same time, the program area selection will be canceled.

In this case, the program that already exists at the copy destination block will be overwritten and will become lost.

Move the cursor to "N013" and press the f8 (OCPY) Key.



The program from N000 to N002 will be copied to N013 line and below.



3.1 PROGRAMMING OPERATIONS (ONLINE)

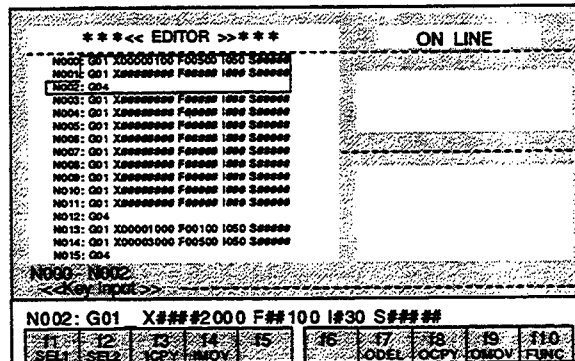
3 - f9 (OMOV) Overwriting moving of selected program area

All of the lines of the selected program area are moved and overwritten onto the cursor position.

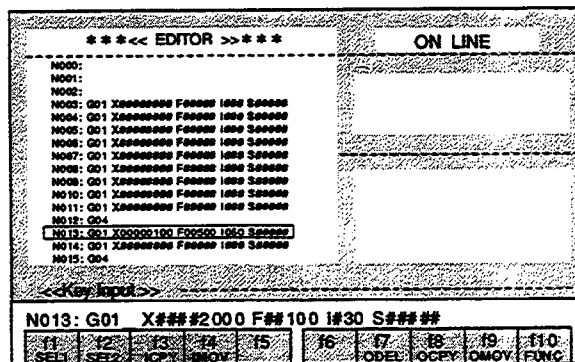
At the same time, the program area selection will be canceled.

In this case, the program that already exists at the move destination block will be overwritten and will become lost.

Move the cursor to "N013" and press the f9 (OMOV) Key.



The program from N000 to N002 will be moved as a block to N013 line and below.



3.2 PROGRAMMING OPERATIONS (OFFLINE)

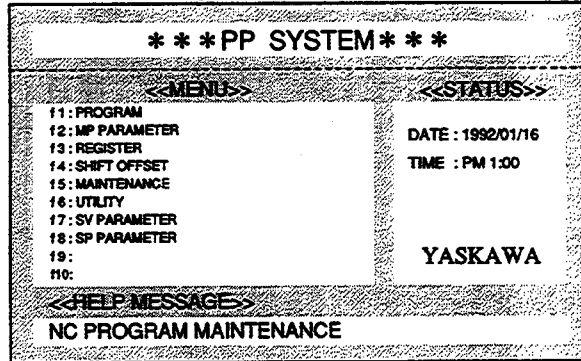
File editing is performed in the offline.

The edited contents will become lost if editing is terminated without performing the save operation.

3.2.1 Basic Operations

1. Select "PROGRAM" from the MENU Screen and press the f1 Key.

The Program Editing Screen will be displayed.

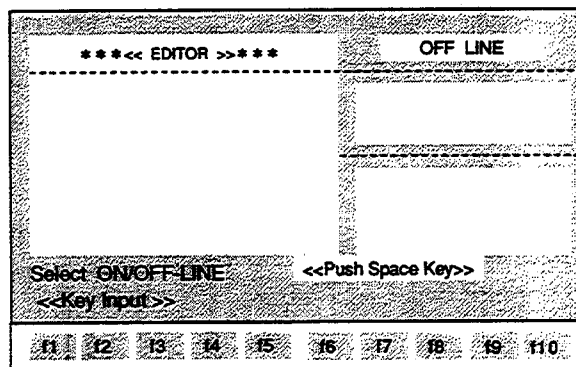


2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively.

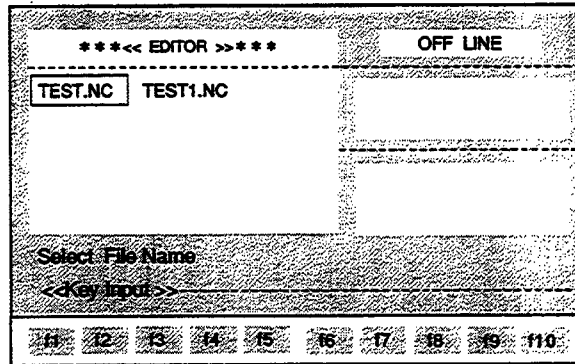
When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.

<PROGRAM EDITING SCREEN>

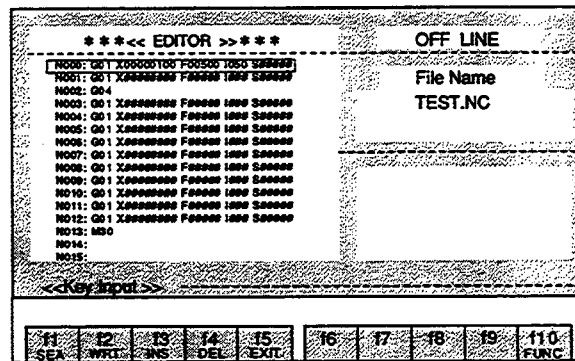


3.2 PROGRAMMING OPERATIONS (OFFLINE)

- The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

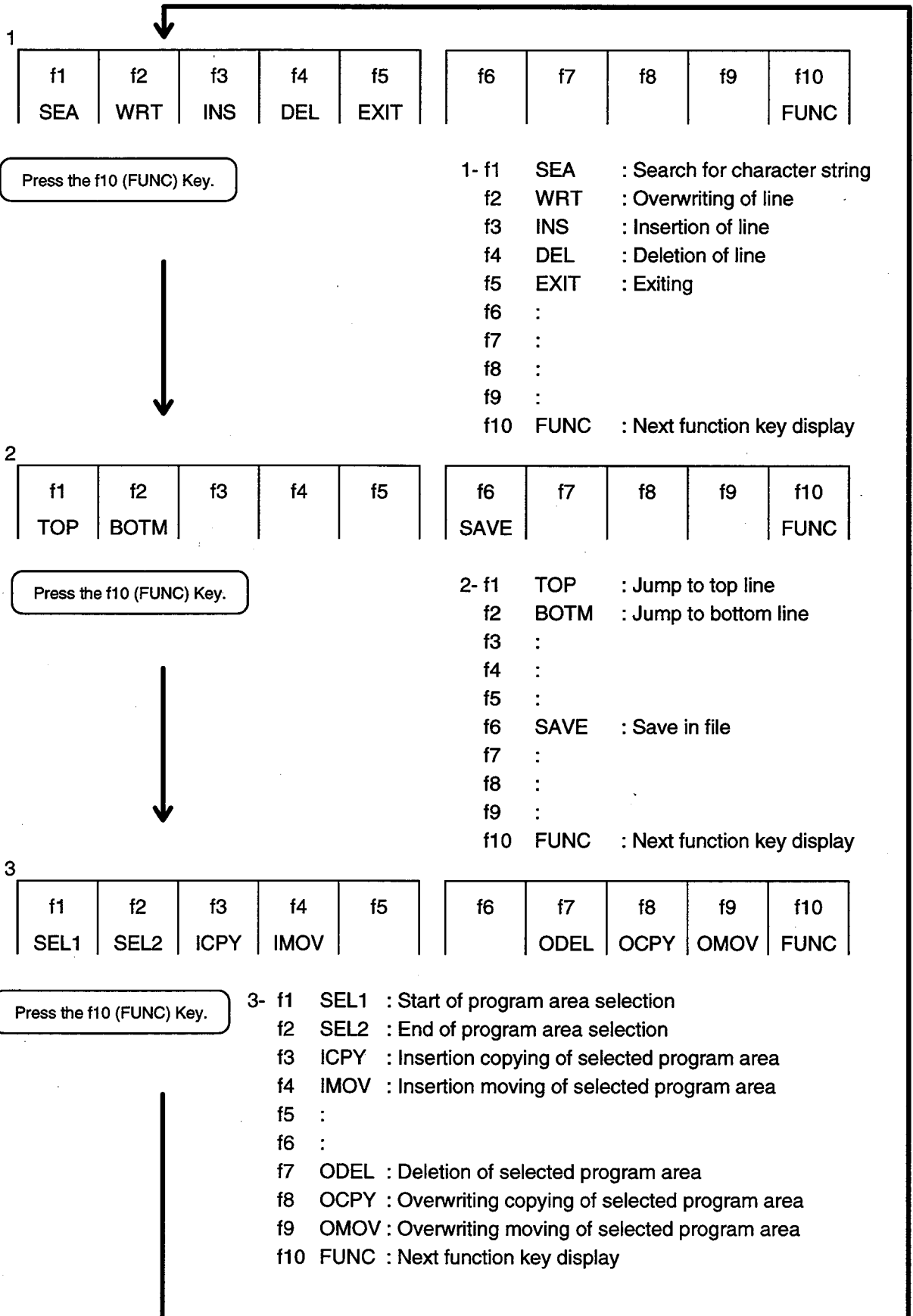


- The contents of the program in the selected file will be displayed.
The N000 to N999 programs can be monitored by pressing the ROLL UP Key.



3.2 PROGRAMMING OPERATIONS (OFFLINE)

3.2.2 Explanation of the Function Keys



3.2 PROGRAMMING OPERATIONS (OFFLINE)

3.2.3 Details of the Function Keys

■ 1 - f1 (SEA) Search for character string

The designated character strings are searched for from the current cursor position to the designated position. There are two searching methods; the line number designation and the word designation.

< Line number designation >

1. Press the f1 (SEA) Key.

The message, "Str=?", will be displayed at the input line.

2. Enter "N10" in the Input Line and press the Enter Key.

<< EDITOR >>					OFF LINE				
N000: G01 X00000100 F00500 I050 S0000									
N001: G01 X000000 F0000 I00 S0000									
N002: G04									
N003: G01 X000000 F0000 I00 S0000									
N004: G01 X000000 F0000 I00 S0000									
N005: G01 X000000 F0000 I00 S0000									
N006: G01 X000000 F0000 I00 S0000									
N007: G01 X000000 F0000 I00 S0000									
N008: G01 X000000 F0000 I00 S0000									
N009: G01 X000000 F0000 I00 S0000									
N010: G01 X000000 F0000 I00 S0000									
N011: G01 X000000 F0000 I00 S0000									
N012: G01 X000000 F0000 I00 S0000									
N013: M30									
N014:									
N015:									
<<Key Input>>									
Str = ? N010									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WRT	INS	DEL	EXIT					FUNC

The cursor will move to N10 line.

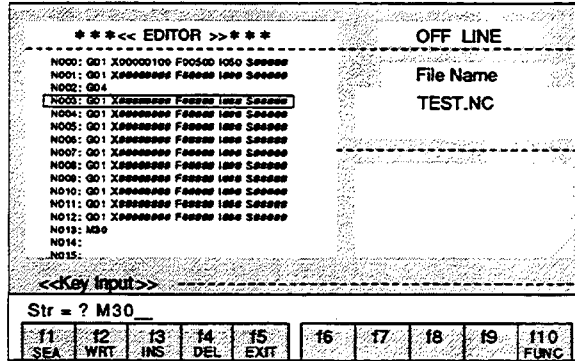
<< EDITOR >>					OFF LINE				
N000: G01 X00000100 F00500 I050 S0000									
N001: G01 X000000 F0000 I00 S0000									
N002: G04									
N003: G01 X000000 F0000 I00 S0000									
N004: G01 X000000 F0000 I00 S0000									
N005: G01 X000000 F0000 I00 S0000									
N006: G01 X000000 F0000 I00 S0000									
N007: G01 X000000 F0000 I00 S0000									
N008: G01 X000000 F0000 I00 S0000									
N009: G01 X000000 F0000 I00 S0000									
N010: G01 X000000 F0000 I00 S0000									
N011: G01 X000000 F0000 I00 S0000									
N012: G01 X000000 F0000 I00 S0000									
N013: M30									
N014:									
N015:									
<<Key Input>>									
N010: G01 X#### F#### I### S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WRT	INS	DEL	EXIT					FUNC

3.2 PROGRAMMING OPERATIONS (OFFLINE)

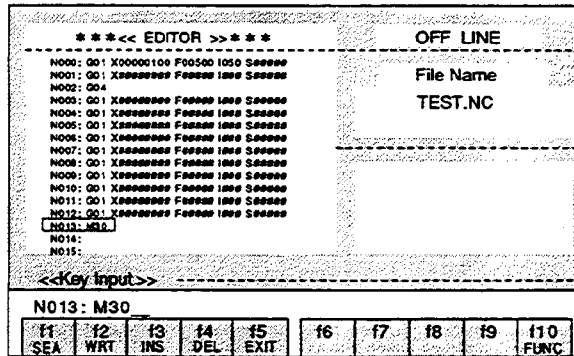
< Word designation >

The line containing the designated word is searched for from the next line after the cursor position to the last line. If a match is found, the cursor will move to the corresponding line. If no matches are found, the "not found" message will be displayed.

1. Press the f1 (SEA) Key.
The message, "Str=?", will be displayed at the input line.
2. Enter "M30" in the Input Line and press the Enter Key.



The cursor will move to M30 line.

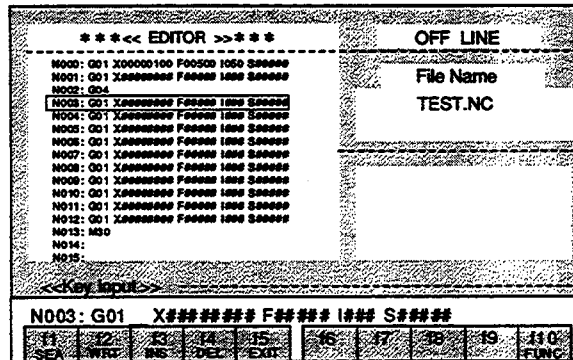


3.2 PROGRAMMING OPERATIONS (OFFLINE)

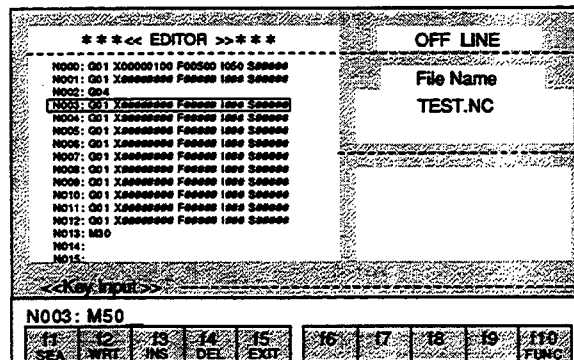
1 - f2 (WRT) Overwriting of line

The contents of the input line are written into the cursor position.

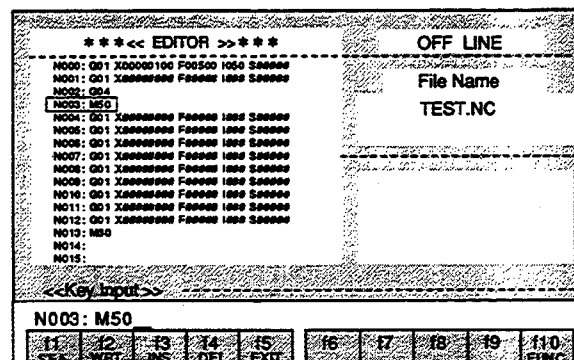
- When "N003:G01X*****F*****|***S*****" is to be rewritten as "N003:M50", press the f4 (DEL) Key or the DEL Key.



- Enter "M50" following the "N003:" in the Input Line. Press the f2 (WRT) Key.



The line will be rewritten as "N003:M50".



Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ 1 - f3 (INS) Insertion of line

The data at the input line is inserted in the line at which the cursor is positioned. Insertion can be performed up to a blank line position.

1. Enter "G01 X####2000F##100 I#30 S#####" and press the f3 (INS) Key.

<< EDITOR >>					OFF LINE				
N000: G01 X0000100 F0050 I00 S0000									
N001: G01 X####2000 F##100 I#30 S####									
N002:									
N003:									
N004: G01 X##### F#### I## S####									
N005: G01 X##### F#### I## S####									
N006: G01 X##### F#### I## S####									
N007: G01 X##### F#### I## S####									
N008: G01 X##### F#### I## S####									
N009: G01 X##### F#### I## S####									
N010: G01 X##### F#### I## S####									
N011: G01 X##### F#### I## S####									
N012: G01 X##### F#### I## S####									
N013: M00									
N014:									
N015:									
<<Key Input>>									
N001: G01 X####2000 F##100 I#30 S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WR	INS	DEL	EXT					FUNC

The data of the Input Line will be inserted at N001.

<< EDITOR >>					ON LINE				
N000:									
N001:									
N002: G01 X##### F#### I## S####									
N003: G01 X##### F#### I## S####									
N004: G01 X##### F#### I## S####									
N005: G01 X##### F#### I## S####									
N006: G01 X##### F#### I## S####									
N007: G01 X##### F#### I## S####									
N008: G01 X##### F#### I## S####									
N009: G01 X##### F#### I## S####									
N010: G01 X##### F#### I## S####									
N011: G01 X##### F#### I## S####									
N012: G01									
N013: G01 X####2000 F##100 I#30 S####									
N014: G01 X##### F#### I## S####									
N015: G04									
<<Key Input>>									
N013: G01 X####2000 F##100 I#30 S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEL1	SEL2	ICPY	IMOV		ODEL	OCPY	OMOV		FUNC

2. Press the f3 (INS) Key again.

The same data will be inserted at N002.

<< MP PARAMETER >>					ON LINE				
Pr000=									
Pr001= 3000									
Pr002= 10000									
Pr003= 2000									
Pr004= 30									
Pr005= 0									
Pr006= 5000									
Pr007= 0									
Pr008= 1									
Pr009=									
Pr010=									
Pr011= 0									
Pr012=									
Pr013=									
Pr014=									
Pr015=									
<<Key Input>>									
Pr 006 =5000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXT	FDUP	FDDN	VERF	STY	

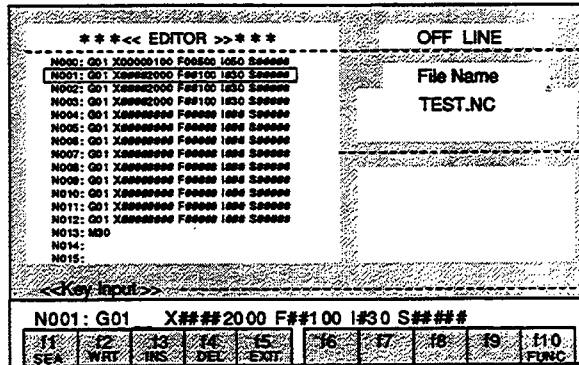
Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

3.2 PROGRAMMING OPERATIONS (OFFLINE)

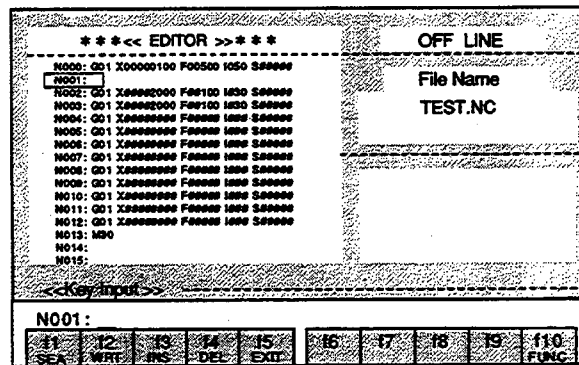
1 - f4 (DEL) Deletion of line

The line at which the cursor is positioned is deleted.

Set the cursor to N001 and press the f4 (DEL) Key.



The data at N001 will be deleted.



Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ 1 - f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

2. Enter "Y".

When a character other than "Y" is entered, editing will be continued.

The "SAVE OK? (Y/N)" message will be displayed at the Status Line.

3. Enter "Y".

<< EDITOR >>					OFF LINE				
N000: G01 X0000100 F0050 I050 S0000					File Name				
N001: G01 X0002000 F00100 I030 S0000					TEST.NC				
N002: G01 X0002000 F00100 I030 S0000									
N003: G01 X0002000 F00100 I030 S0000									
N004: G01 X0000000 F0000 I000 S0000									
N005: G01 X0000000 F0000 I000 S0000									
N006: G01 X0000000 F0000 I000 S0000									
N007: G01 X0000000 F0000 I000 S0000									
N008: G01 X0000000 F0000 I000 S0000									
N009: G01 X0000000 F0000 I000 S0000									
N010: G01 X0000000 F0000 I000 S0000									
N011: G01 X0000000 F0000 I000 S0000									
N012: G01 X0000000 F0000 I000 S0000									
N013: M30									
N014:									
N015:									
EXIT OK?(Y/N)									
<<Key Input>>									
N003 G01 X###2000 F#100 I#30 S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WRT	INS	DEL	EXIT					FUNC

When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.

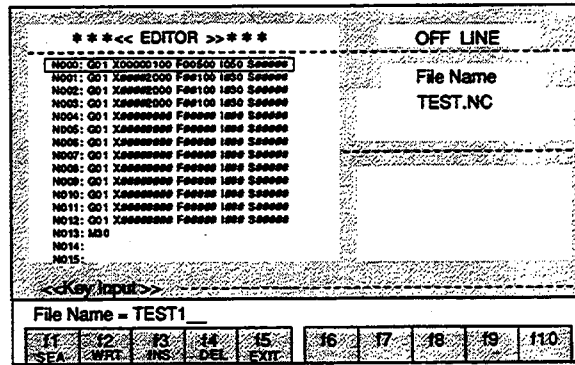
<< EDITOR >>					OFF LINE				
N000: G01 X0000100 F0050 I050 S0000					File Name				
N001: G01 X0002000 F00100 I030 S0000					TEST.NC				
N002: G01 X0002000 F00100 I030 S0000									
N003: G01 X0002000 F00100 I030 S0000									
N004: G01 X0000000 F0000 I000 S0000									
N005: G01 X0000000 F0000 I000 S0000									
N006: G01 X0000000 F0000 I000 S0000									
N007: G01 X0000000 F0000 I000 S0000									
N008: G01 X0000000 F0000 I000 S0000									
N009: G01 X0000000 F0000 I000 S0000									
N010: G01 X0000000 F0000 I000 S0000									
N011: G01 X0000000 F0000 I000 S0000									
N012: G01 X0000000 F0000 I000 S0000									
N013: M30									
N014:									
N015:									
SAVE OK?(Y/N)									
<<Key Input>>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WRT	INS	DEL	EXIT					

4. If the edited contents are to be saved in the file displayed at the Input Line, just press the Enter Key.

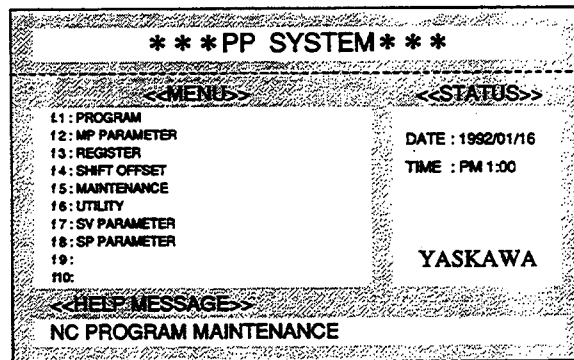
<< EDITOR >>					OFF LINE				
N000: G01 X0000100 F0050 I050 S0000					File Name				
N001: G01 X0002000 F00100 I030 S0000					TEST.NC				
N002: G01 X0002000 F00100 I030 S0000									
N003: G01 X0002000 F00100 I030 S0000									
N004: G01 X0000000 F0000 I000 S0000									
N005: G01 X0000000 F0000 I000 S0000									
N006: G01 X0000000 F0000 I000 S0000									
N007: G01 X0000000 F0000 I000 S0000									
N008: G01 X0000000 F0000 I000 S0000									
N009: G01 X0000000 F0000 I000 S0000									
N010: G01 X0000000 F0000 I000 S0000									
N011: G01 X0000000 F0000 I000 S0000									
N012: G01 X0000000 F0000 I000 S0000									
N013: M30									
N014:									
N015:									
File Name Input									
<<Key Input>>									
File Name = TEST									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	WRT	INS	DEL	EXIT					

3.2 PROGRAMMING OPERATIONS (OFFLINE)

If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.



The display will return to the MENU Screen after saving is completed.

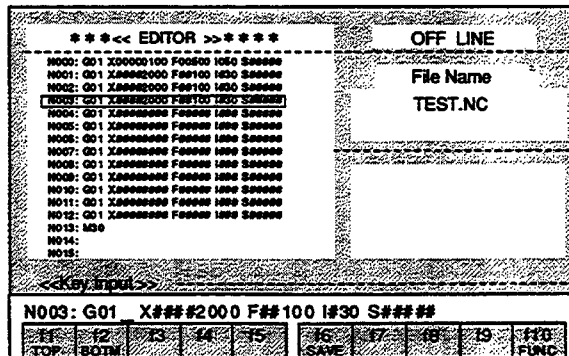


3.2 PROGRAMMING OPERATIONS (OFFLINE)

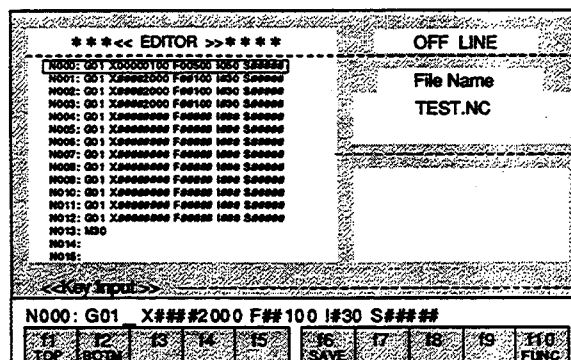
3.2.4 Details of the Function Keys of Sub-program

■ 2 - f1 (TOP) Jump to top line

When the f1 (TOP) Key is pressed, the cursor will move to the first line which is not a blank line. If all lines are blank, the cursor will move to the first line (N000).



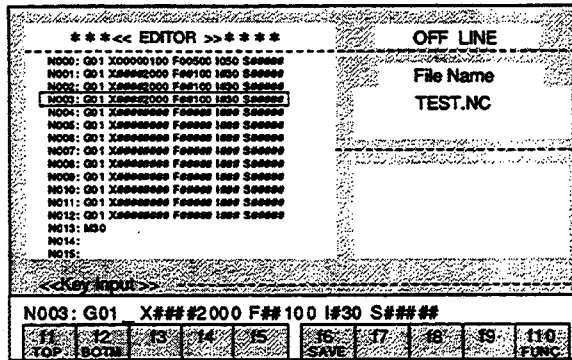
The cursor will move to N000, which is the first line.



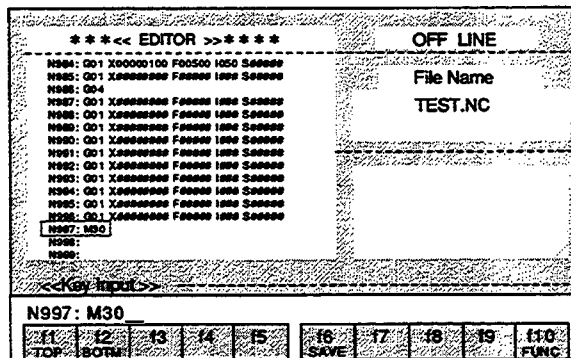
3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ 2 - f2 (BOTM) Jump to bottom line

When the f2 (BOTM) Key is pressed, the cursor will move to the last line which is not blank. If all lines are blank, the cursor will move to the bottom line (N999).



The cursor will move to N997, which is the last line.



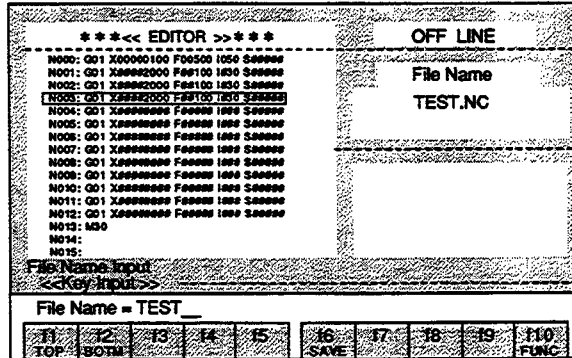
3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ 2 - f6 (SAVE) Save in file

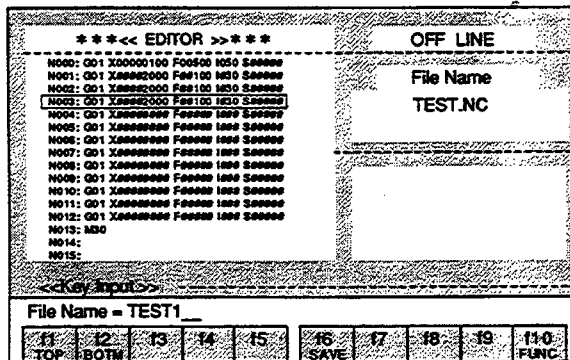
The data in the RAM of the personal computer are saved in a file.

Press the f6 (SAVE) Key.

If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.



If the data are to be saved in a new file, enter the file name and then press the Enter Key.



3.2 PROGRAMMING OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< EDITOR >>					OFF LINE				
N000: G01 X00000100 F00500 I050 S0000					File Name				
N001: G01 X0002000 F00100 I050 S0000					TEST.NC				
N002: G01 X0002000 F00100 I050 S0000									
N003: G01 X0002000 F00100 I050 S0000									
N004: G01 X0000000 F0000 I050 S0000									
N005: G01 X0000000 F0000 I050 S0000									
N006: G01 X0000000 F0000 I050 S0000									
N007: G01 X0000000 F0000 I050 S0000									
N008: G01 X0000000 F0000 I050 S0000									
N009: G01 X0000000 F0000 I050 S0000									
N010: G01 X0000000 F0000 I050 S0000									
N011: G01 X0000000 F0000 I050 S0000									
N012: G01 X0000000 F0000 I050 S0000									
N013: M30									
N014:									
N015:									
SAVE START									
<<key input>>									
File Name = TEST1_									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
TOP	BTM				SAVE				FUNC

Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

3.2 PROGRAMMING OPERATIONS (OFFLINE)

3.2.5 Details of the Function Keys of Sub-sub-program

- 3 - f1 (SEL1) Start of program area selection
- f2 (SEL2) End of program area selection

Start of program area selection

When the f1 (SEL1) Key is pressed, the position at which the cursor is positioned becomes the first line of the selected program area. The selected program area is highlighted as the cursor is moved. This selection can be performed in both upward and downward directions.

End of program area selection

When the f2 (SEL2) Key is pressed, the position at which the cursor is positioned becomes the last line of the selected program area. When the cursor is moved and the f2 (SEL2) Key is pressed again, the last line of the selected program is changed.

When the f2 (SEL2) Key is pressed when program area selection is not being performed, the "select error" error message will be displayed.

Interruption of program area selection

Program area selection will be interrupted when the f1 (SEL1) Key is pressed during program area selection.

1. Press the f1 (SEL1) Key.

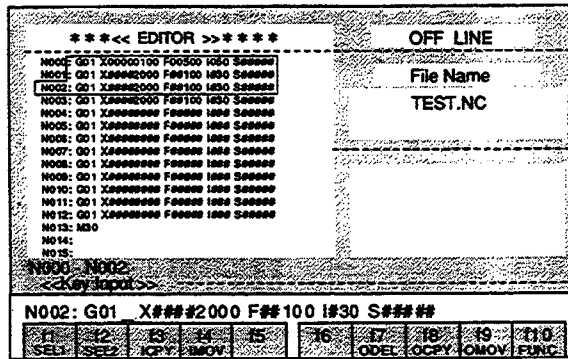
The first line of the selected program area will be displayed at the Status Line.

<< EDITOR >>										OFF LINE	
N000: G01 X00000 I00 F00500 I#30 S####											
N001: G01 X####2000 F#100 I#30 S####											
N002: G01 X####2000 F#100 I#30 S####											
N003: G01 X####2000 F#100 I#30 S####											
N004: G01 X####2000 F#100 I#30 S####											
N005: G01 X####2000 F#100 I#30 S####											
N006: G01 X####2000 F#100 I#30 S####											
N007: G01 X####2000 F#100 I#30 S####											
N008: G01 X####2000 F#100 I#30 S####											
N009: G01 X####2000 F#100 I#30 S####											
N010: G01 X####2000 F#100 I#30 S####											
N011: G01 X####2000 F#100 I#30 S####											
N012: G01 X####2000 F#100 I#30 S####											
N013: M30											
N014:											
N015:											
N000: N###											
<<Key Input>>											
N000: G01 X### #2000 F# 100 I#30 S####											
1	2	3	4	5	6	7	8	9	10		
SEL1	SEL2	ICPY	IMOV		LODEL	LOCPY	LOMOV	LOBNC			

3.2 PROGRAMMING OPERATIONS (OFFLINE)

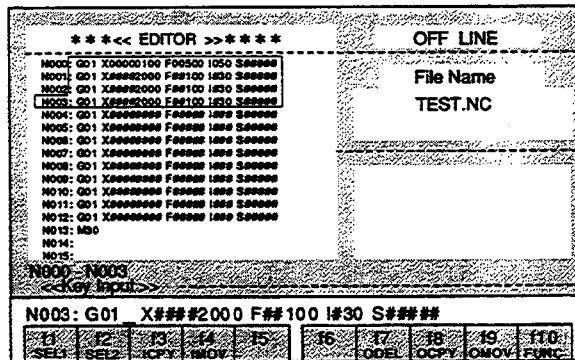
2. Press the f2 (SEL2) Key.

The first and last lines of the selected program area will be displayed at the Status Line.



When the Down Cursor Key is pressed further, the cursor will move by the number of times the key is pressed.

When the f2 (SEL2) Key is pressed, the last line of the selected program area will be changed.



3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ 3 - f3 (ICPY) Insertion copying of selected program area

When program area selection is performed and the f3 (ICPY) Key is pressed upon moving the cursor to the position to which the selected program area is to be copied, the selected program area will be copied. At the same time, the program area selection will be canceled.

Move the cursor to "N012" and press the f3 (ICPY) Key.

<< EDITOR >>					OFF LINE				
N000: G01 X00000100 F0050 I050 S####					File Name TEST.NC				
N001: G01 X##### F#### I### S####									
N002: G04									
N003: G01 X##### F#### I### S####									
N004: G01 X##### F#### I### S####									
N005: G01 X##### F#### I### S####									
N006: G01 X##### F#### I### S####									
N007: G01 X##### F#### I### S####									
N008: G01 X##### F#### I### S####									
N009: G01 X##### F#### I### S####									
N010: G01 X##### F#### I### S####									
N011: G01 X##### F#### I### S####									
N012: G04									
N013:									
N014:									
N015:									
N000-N002									
<<Key Input>									
N002: G01 X### #2000 F## 100 I#30 S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEL	SEP	ICPY	IMOV		ODEL	OCPY	OMOV	FUNC	

The program from N000 to N002 will be copied and inserted at N012 line and below.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

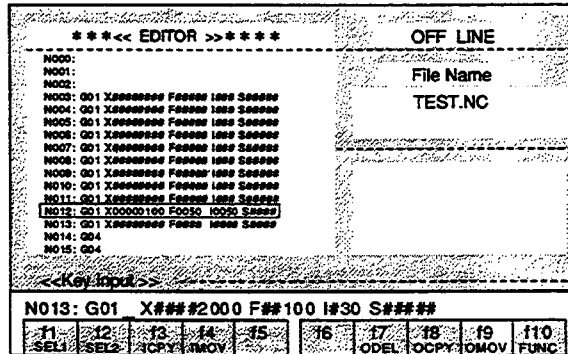
<< EDITOR >>					OFF LINE				
N000: G01 X00000100 F0050 I050 S####					File Name TEST.NC				
N001: G01 X##### F#### I### S####									
N002: G04									
N003: G01 X##### F#### I### S####									
N004: G01 X##### F#### I### S####									
N005: G01 X##### F#### I### S####									
N006: G01 X##### F#### I### S####									
N007: G01 X##### F#### I### S####									
N008: G01 X##### F#### I### S####									
N009: G01 X##### F#### I### S####									
N010: G01 X##### F#### I### S####									
N011: G01 X##### F#### I### S####									
N012: G01 X00000100 F0050 I050 S####									
N013: G01 X##### F#### I### S####									
N014: G04									
N015: G04									
<<Key Input>									
N013: G01 X### #2000 F## 100 I#30 S####									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEL	SEP	ICPY	IMOV		ODEL	OCPY	OMOV	FUNC	

3.2 PROGRAMMING OPERATIONS (OFFLINE)

■ f4 (IMOV) Insertion moving of selected program area

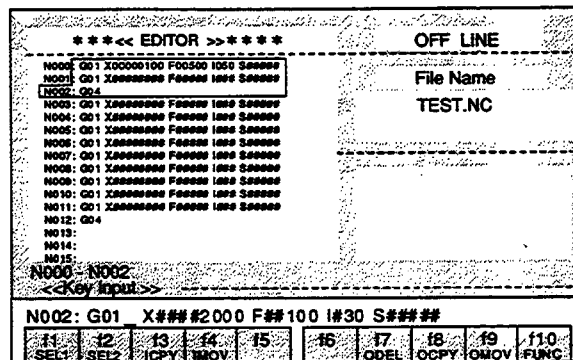
When program area selection is performed and the f4 (IMOV) Key is pressed upon moving the cursor to the position to which the selected program area is to be moved, the selected program area will be moved. At the same time, the program area selection will be canceled.

Move the cursor to "N012" and press the f4 (IMOV) Key.



The program from N000 to N002 will be moved and inserted as a block at N012 line and below.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).



3.2 PROGRAMMING OPERATIONS (OFFLINE)

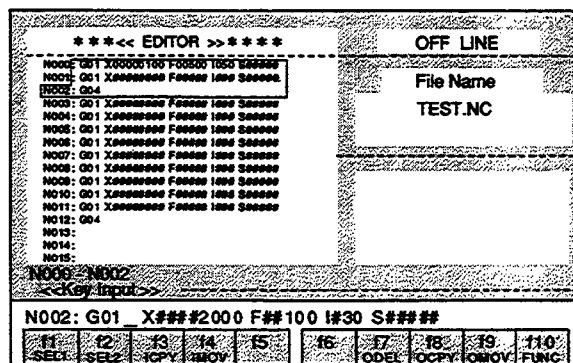
■ 3 - f7 (ODEL) Deletion of selected program area

All of the lines of the selected program area are deleted.

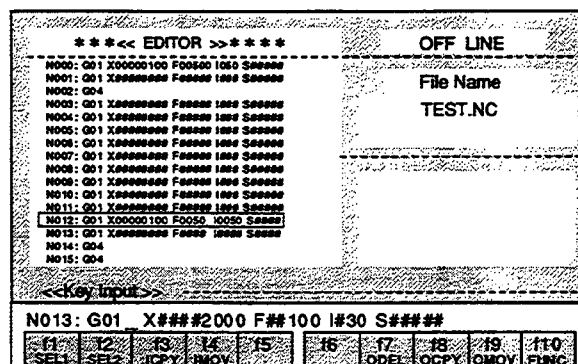
At the same time, the program area selection will be canceled.

Press the f7 (ODEL) Key.

The selected program from N000 to N002 will be deleted.



Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).



3.2 PROGRAMMING OPERATIONS (OFFLINE)

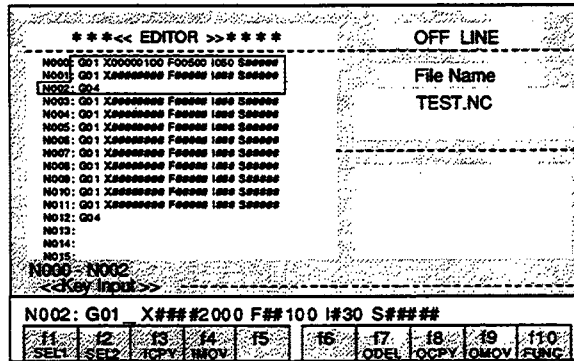
f8 (OCPY) Overwriting copying of selected program area

All of the lines of the selected program area are copied into the cursor position.

At the same time, the program area selection will be canceled.

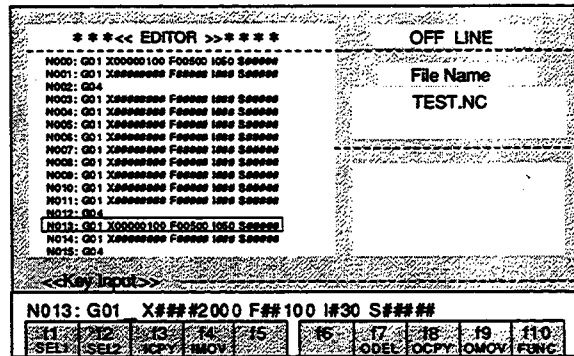
In this case, the program that already exists at the copy destination block will be overwritten and will become lost.

Move the cursor to "N013" and press the f8 (OCPY) Key.



The program from N000 to N002 will be copied to N013 line and below.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).



3.2 PROGRAMMING OPERATIONS (OFFLINE)

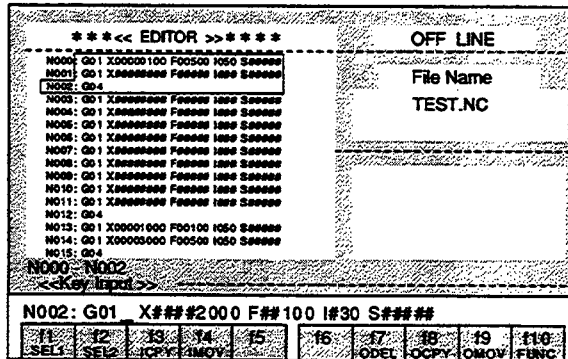
■ 3 - f9 (OMOV) Overwriting moving of selected program area

All of the lines of the selected program area are moved and overwritten onto the cursor position.

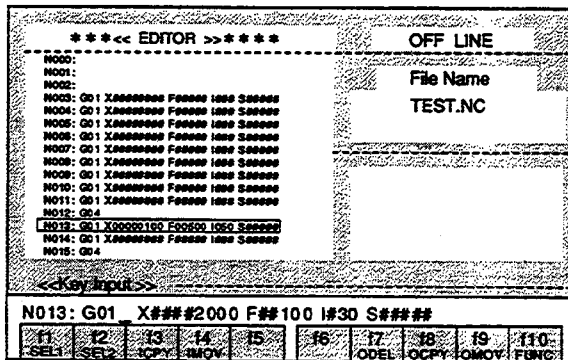
At the same time, the program area selection will be canceled.

In this case, the program that already exists at the move destination block will be overwritten and will become lost.

Move the cursor to "N013" and press the f9 (OMOV) Key.



The program from N000 to N002 will be moved as a block to N013 line and below.



Note: The edited contents will become lost if editing is terminated without performing the save operation (see 2 - f6 (SAVE)).

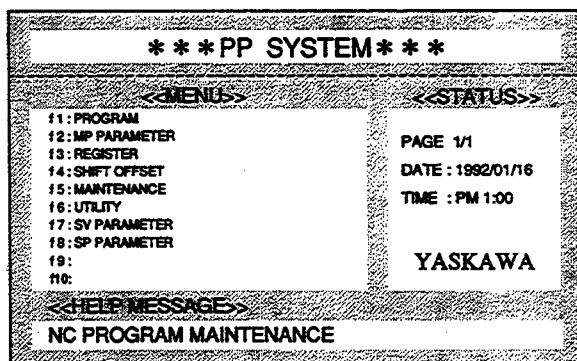
4 CONTROLLER PARAMETER OPERATIONS

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

The changing, uploading, and downloading of the controller parameters are performed as explained below. When a changing operation is performed in the online mode, the contents of the MOTIONPACK parameters will be changed immediately. Thus the contents of the MOTIONPACK parameters and the contents of the parameters in the editing screen will be matched.

4.1.1 Basic Operations

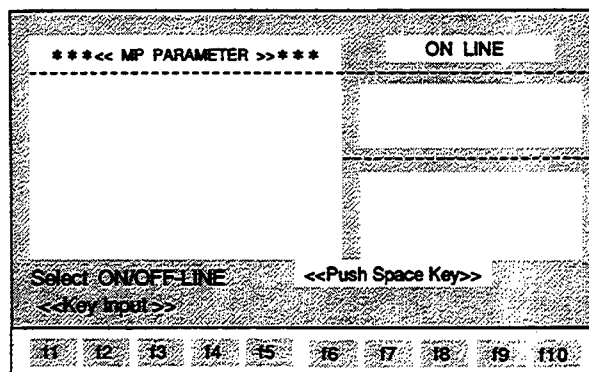
1. Select "MP PARAMETER" from the MENU Screen and press the f2 Key.
The Controller Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.

<CONTROLLER PARAMETER EDITING SCREEN>



4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

The contents of the parameters set in MOTIONPACK will be displayed.
The parameters in the next page can be monitored by pressing the ROLL UP Key.

<< MP PARAMETER >>					ON LINE				
Pr000- *****									
Pr001- 30000									
Pr002- 10000									
Pr003- 2000									
Pr004- 30									
Pr005- 0									
Pr006- 10000									
Pr007- 0									
Pr008- 1									
Pr009- *****									
Pr010- *****									
Pr011- 0									
Pr012- *****									
Pr013- *****									
Pr014- *****									
Pr015- *****									
<<Key Input>>									
Pr 000- *****									
T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
SEA				EXT	FDDP	FDDN	VERF	STY	

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

4.1.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

f1 SEA : Search for character string

f2 :

f3 :

f4 :

f5 EXIT : Exiting

f6 FDUP : Upload

f7 FDDN : Download

f8 VERF : Verify

f9 STY : Status display

f10 :

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

4.1.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for from the current cursor position.

1. Enter "006" following the "Pr" at the Input Line.

<< MP PARAMETER >>					ON LINE				
Pr000=	*****								
Pr001=	30000								
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
<<Key Input>>									
Pr 000=	*****								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXP	EDUP	EDON	VERE	STY	

2. Press the f1 (SEA) Key.

The cursor will move to Pr006 line.

<< MP PARAMETRE >>					ON LINE				
Pr000=	*****								
Pr001=	30000								
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
<<Key Input>>									
Pr 006=	10000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXP	EDUP	EDON	VERE	STY	

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

< Control Parameter Changing Method >

To rewrite to "Pr006 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.

```
***<< MP PARAMETER >>***      ON LINE
-----
Pr001= *****
Pr002= 30000
Pr003= 10000
Pr004= 2000
Pr005= 30
Pr006= 0
Pr007= 10000
Pr008= 0
Pr009= 1
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****
<<Key Input>>
Pr 006 = 
F1  F2  F3  F4  F5  F6  F7  F8  F9  F10
SEA  EXT  FDDP  FDDN  VERF  STY
```

2. Enter "5000" and press the Enter Key.

```
***<< MP PARAMETER >>***      ON LINE
-----
Pr001= *****
Pr002= 30000
Pr003= 10000
Pr004= 2000
Pr005= 30
Pr006= 0
Pr007= 10000
Pr008= 0
Pr009= 1
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****
<<Key Input>>
Pr 006 = 
F1  F2  F3  F4  F5  F6  F7  F8  F9  F10
SEA  EXT  FDDP  FDDN  VERF  STY
```

The parameter will be changed.

```
***<< MP PARAMETER >>***      ON LINE
-----
Pr001= *****
Pr002= 30000
Pr003= 10000
Pr004= 2000
Pr005= 30
Pr006= 5000
Pr007= 0
Pr008= 1
Pr009= *****
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****
<<Key Input>>
Pr 006 = 
F1  F2  F3  F4  F5  F6  F7  F8  F9  F10
SEA  EXT  FDDP  FDDN  VERF  STY
```

If a change to "Pr006 = 10000" was made by mistake when the change to "Pr007 = 10000" was intended:

If the Enter Key has not been pressed yet, press the ESC Key.

The conditions will return to those prior to the change.

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

<< MP PARAMETER >>

ON LINE

P000- *****
P001= 30000
P002= 10000
P003= 2000
P004= 30
P005= 0
P006= 10000
P007= 0
P008= 1
P009= *****
P010= *****
P011= 0
P012= *****
P013= *****
P014= *****
P015= *****

EXIT OK?(Y/N)
<<Key Input>>

Pr 006= 10000

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXT	STOP	DDN	VER	STY	

2. When "Y" is entered, editing will be completed and the display will return to the MENU Screen.
When a character other than "Y" is entered, editing will continue.

PP SYSTEM

<<MENU>>

<<STATUS>>

11: PROGRAM
12: MP PARAMETER
13: REGISTER
14: SHIFT OFFSET
15: MAINTENANCE
16: UTILITY
17: SV PARAMETER
18: SP PARAMETER
19:
110:

DATE : 1992/01/16
TIME : PM 1:00
YASKAWA

<<HELP MESSAGE>>
NC PROGRAM MAINTENANCE

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

■ f6 (FDUP) Upload

Parameters are read in from MOTIONPACK.

1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.

<< MP PARAMETER >>										ON LINE				
File Name Input														
<<Key Input>>														
11	12	13	14	15	16	17	18	19	110					
SEA				EXIT	FDUP	FDDN	VERF	STY						

2. Enter the file name and press the Enter Key.

Uploading will begin.

<< MP PARAMETER >>										ON LINE				
<<Key Input>>														
TEST														
11	12	13	14	15	16	17	18	19	110					
SEA				EXIT	FDUP	FDDN	VERF	STY						

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.

<< MP PARAMETER >>										ON LINE	
Pr000=	*****										
Pr001=	30000										
Pr002=	10000										
Pr003=	2000										
Pr004=	30										
Pr005=	0										
Pr006=	10000										
Pr007=	0										
Pr008=	1										
Pr009=	*****										
Pr010=	*****										
Pr011=	0										
Pr012=	*****										
Pr013=	*****										
Pr014=	*****										
Pr015=	*****										
Up Load Start Push [ESC] key exit											
<<Key Input>>											
[PP]	<									[MP]	
11	12	13	14	15	16	17	18	19	110		
SEA				EXIT	FDUP	FDDN	VERF	STY			

3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line .

<< MP PARAMETER >>										ON LINE	
Pr000=	*****										
Pr001=	30000										
Pr002=	10000										
Pr003=	2000										
Pr004=	30										
Pr005=	0										
Pr006=	10000										
Pr007=	0										
Pr008=	1										
Pr009=	*****										
Pr010=	*****										
Pr011=	0										
Pr012=	*****										
Pr013=	*****										
Pr014=	*****										
Pr015=	*****										
<<Key Input>>											
Up Load End											
11	12	13	14	15	16	17	18	19	110		
SEA				EXIT	FDUP	FDDN	VERF	STY			

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

■ f7 (FDDN) Download

Parameters are written into MOTIONPACK.

1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< MP PARAMETER >>					ON LINE					
TEST1.PRM			TEST2.PRM			TEST3.PRM				
TEST4.PRM			TEST5.PRM			TEST6.PRM				
<<Key Input>>										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA				EXIT	FDUP	FDDN	VERF	STY		

2. Select the file name using the Cursor Keys and press the Enter Key.

Downloading will be started.

<< MP PARAMETER >>					ON LINE					
TEST1.PRM			TEST2.PRM			TEST3.PRM				
TEST4.PRM			TEST5.PRM			TEST6.PRM				
<<Key Input>>										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA				EXIT	FDUP	FDDN	VERF	STY		

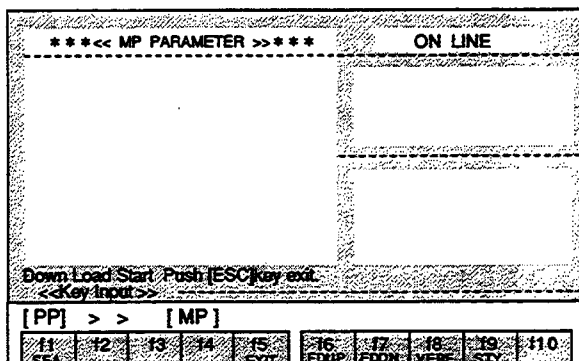
4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

During downloading, the following messages are displayed:

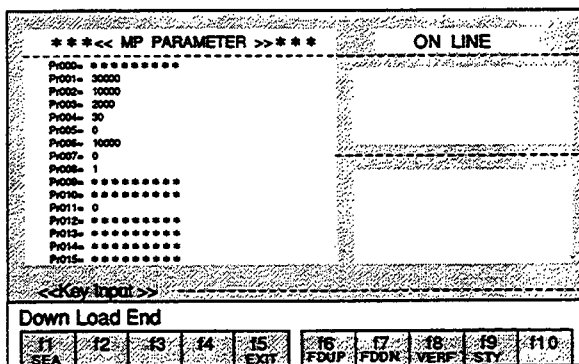
At the Status Line, the "Down Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.



3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line .



4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

■ f8 (VERF) Verify

The MOTIONPACK parameters are verified with the parameters of the designated file.

1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< MP PARAMETER >>					ON LINE				
TEST1.PRM	TEST2.PRM	TEST3.PRM							
TEST4.PRM	TEST5.PRM	TEST6.PRM							
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	EDUP	EDDN	VERF	STY	

2. Select the file name using the Cursor Keys and press the Enter Key.

The MOTIONPACK parameters are verified with the parameters in the selected file.

<< MP PARAMETER >>					ON LINE				
TEST1.PRM	TEST2.PRM	TEST3.PRM							
TEST4.PRM	TEST5.PRM	TEST6.PRM							
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	EDUP	EDDN	VERF	STY	

4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:

In the Text Screen, the contents of the MOTIONPACK parameters will be displayed.

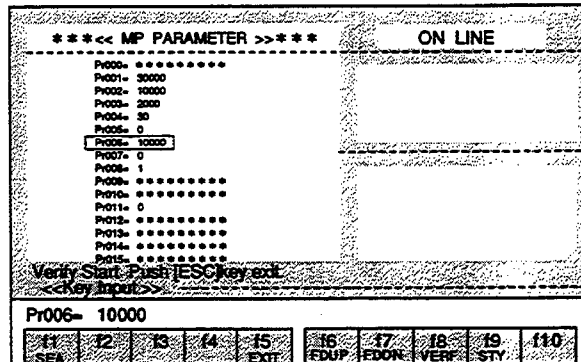
At the Input Line, the contents of the parameters in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification

The "Verify End" message will be displayed after completing verification.

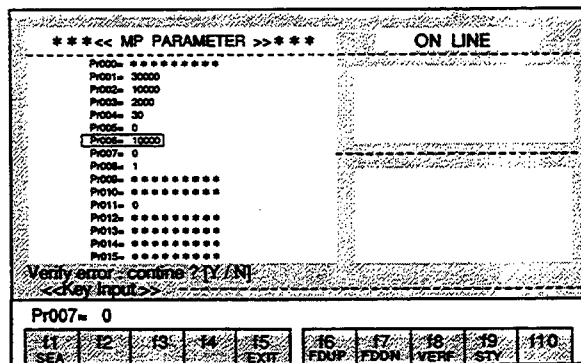
Verification will be interrupted when the ESC Key is pressed during verification.



- If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.



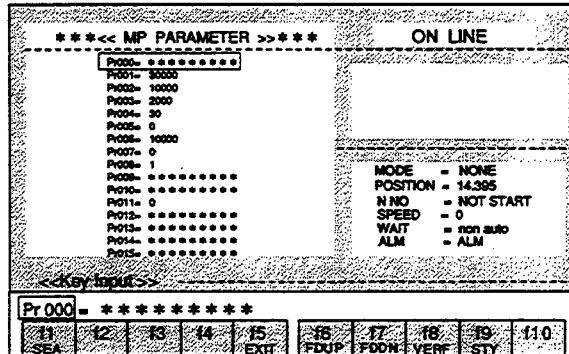
4.1 CONTROLLER PARAMETER OPERATIONS (ONLINE)

■ f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

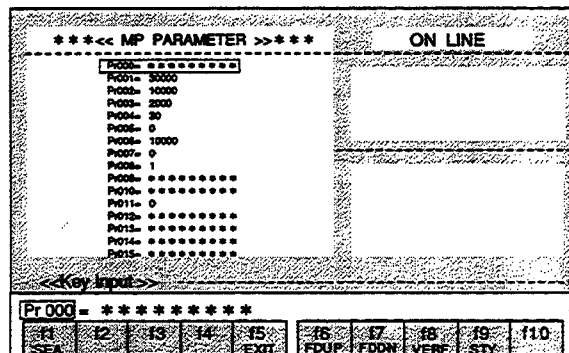
1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.



2. Press the f9 (STY) Key again.

The status display will disappear.



4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

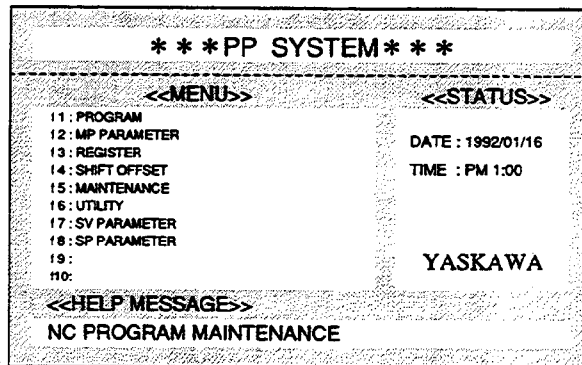
4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

The changing, uploading, and downloading of the controller parameters are performed as explained below. File editing is performed in the offline mode.

The edited contents will become lost if editing is ended without performing the save operation.

4.2.1 Basic Operations

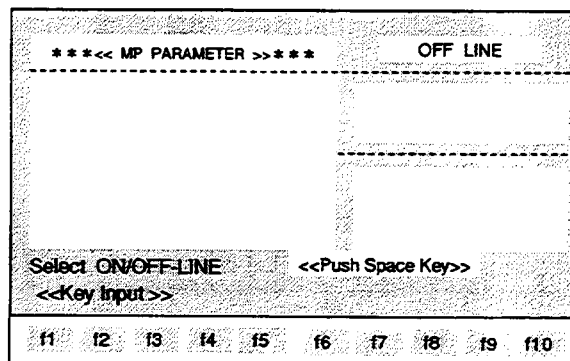
1. Select "MP PARAMETER" from the MENU Screen and press the f2 Key.
The Controller Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.

<CONTROLLER PARAMETER EDITING SCREEN>



4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

- The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
TEST1.PRM	TEST2.PRM	TEST3.PRM							
TEST4.PRM	TEST5.PRM	TEST6.PRM							
Select File Name									
<<Key Input>>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10

- The contents of the parameters in the designated file will be displayed.
The parameters in the next page can be monitored by pressing the ROLL UP Key.

<< MP PARAMETER >>					OFF LINE				
Pr001= 30000					File Name				
Pr002= 10000					TEST1.PRM				
Pr003= 2000									
Pr004= 30									
Pr005= 0									
Pr006= 10000									
Pr007= 0									
Pr008= 1									
Pr009= *****									
Pr010= *****									
Pr011= 0									
Pr012= *****									
Pr013= *****									
Pr014= *****									
Pr015= *****									
<<Key Input>>									
Pr 000= *****									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

4.2.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

f1 SEA : Search for character string

f2 :

f3 LOAD : Loading of file

f4 SAVE : Save in file

f5 EXIT : Exiting

f6 :

f7 :

f8 :

f9 :

f10 :

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

4.2.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for from the current cursor position.

1. Enter "006" following the "Pr" at the Input Line.

<< MP PARAMETER >>					OFF LINE				
Pr000=	*****								
Pr001=	30000								
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
<<Key Input>>									
Pr 000=	*****								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

2. Press the f1 (SEA) Key.

The cursor will move to Pr006 line .

<< MP PARAMETRE >>					OFF LINE				
Pr000=	*****								
Pr001=	30000								
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
<<Key Input>>									
Pr 006=	10000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

< Control Parameter Changing Method >

To rewrite to "Pr006 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.

<< MP PARAMETER >> OFF LINE

File Name
TEST1.PRM

Pr000= *****
Pr001= 30000
Pr002= 10000
Pr003= 2000
Pr004= 30
Pr005= 0
Pr006= 10000
Pr007= 0
Pr008= 1
Pr009= *****
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****

<<Key Input>>

Pr 006 =

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

2. Enter "5000" and press the Enter Key.

<< MP PARAMETER >> OFF LINE

File Name
TEST1.PRM

Pr000= *****
Pr001= 30000
Pr002= 10000
Pr003= 2000
Pr004= 30
Pr005= 0
Pr006= 5000
Pr007= 0
Pr008= 1
Pr009= *****
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****

<<Key Input>>

Pr 006 =

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

The parameter will be changed.

<< MP PARAMETER >> OFF LINE

File Name
TEST1.PRM

Pr001= 30000
Pr002= 10000
Pr003= 2000
Pr004= 30
Pr005= 0
Pr006= 5000
Pr007= 0
Pr008= 1
Pr009= *****
Pr010= *****
Pr011= 0
Pr012= *****
Pr013= *****
Pr014= *****
Pr015= *****

<<Key Input>>

Pr 006 =

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

If a change to "Pr006 = 10000" was made by mistake when the change to "Pr007 = 10000" was intended: If the Enter Key has not been pressed yet, press the ESC Key.

The conditions will return to those prior to the change.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see f4 (SAVE)).

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

■ f3 (LOAD) Loading of file

The data of the designated file are transferred to the RAM of the personal computer.

1. Press the f3 (LOAD) Key.

<< MP PARAMETER >>					OFF LINE				
Pr000- ***** Pr001- 2000 Pr002- 10000 Pr003- 2000 Pr004- 30 Pr005- 0 Pr006- 10000 Pr007- 0 Pr008- 1 Pr009- ***** Pr010- ***** Pr011- 0 Pr012- ***** Pr013- ***** Pr014- ***** Pr015- *****					File Name TEST1.PRM				
<<Key Input>>									
Pr 000= *****									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					

2. The File Selection Menu will be displayed. Select the file name using the Cursor Keys and press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
TEST1.PRM TEST2.PRM TEST3.PRM TEST4.PRM TEST5.PRM TEST6.PRM									
Select File Name									
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110

The contents of the selected file will be displayed in the Text Screen.

<< MP PARAMETER >>					OFF LINE				
Pr000- 100 Pr001- 80 Pr002- 80 Pr003- 70 Pr004- 30 Pr005- 0 Pr006- 10000 Pr007- 0 Pr008- 1 Pr009- 80 Pr010- 30 Pr011- 0 Pr012- 40 Pr013- 30 Pr014- 20 Pr015- 10					File Name TEST2.PRM				
Load End									
<<Key Input>>									
Pr 000= 100									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

■ f4 (SAVE) Save in file

The data in the RAM of the personal computer are saved in a file.

1. Press the f4 (SAVE) Key.
2. If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
P000- *****					File Name				
P001= 30000					TEST1.PRM				
P002= 10000									
P003= 2000									
P004= 30									
P005= 0									
P006= 10000									
P007= 0									
P008= 1									
P009- *****									
P010- *****									
P011= 0									
P012- *****									
P013- *****									
P014- *****									
P015- *****									
<<Key Input>>									
File Name = TEST1									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

If the data are to be saved in a new file, enter the file name and then press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
P000- *****					File Name				
P001= 30000					TEST1.PRM				
P002= 10000									
P003= 2000									
P004= 30									
P005= 0									
P006= 10000									
P007= 0									
P008= 1									
P009- *****									
P010- *****									
P011= 0									
P012- *****									
P013- *****									
P014- *****									
P015- *****									
<<Key Input>>									
File Name = TEST2									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< MP PARAMETER >>					OFF LINE				
P001= 30000 P002= 10000 P003= 2000 P004= 30 P005= 0 P006= 10000 P007= 0 P008= 1 P009= ***** P010= ***** P011= 0 P012= ***** P013= ***** P014= ***** P015= *****					File Name TEST1.PRM				
SAVE START									
<<Key Input>>									
File Name = TEST1									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEP		LOAD	SAVE	EXIT					

Note: The edited contents will become lost if editing is terminated without performing the save operation.

<< MP PARAMETER >>					OFF LINE				
P001= 30000 P002= 10000 P003= 2000 P004= 30 P005= 0 P006= 10000 P007= 0 P008= 1 P009= ***** P010= ***** P011= 0 P012= ***** P013= ***** P014= ***** P015= *****					File Name TEST1.PRM				
SAVE END									
<<Key Input>>									
Pr.000= *****									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEP		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.
The "EXIT OK?(Y/N)" message will be displayed at the Status Line.
2. Enter "Y".
When a character other than "Y" is entered, editing will be continued.

<< MP PARAMETER >>					OFF LINE				
Pr000=	*****				File Name				
Pr001=	30000				TEST1.PRM				
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
EXIT OK?(Y/N)									
<<Key Input>>									
Pr 006= 10000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

3. The "SAVE OK?(Y/N)" message will be displayed at the Status Line.
Enter "Y".
When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.

<< MP PARAMETER >>					OFF LINE				
Pr000=	*****				File Name				
Pr001=	30000				TEST1.PRM				
Pr002=	10000								
Pr003=	2000								
Pr004=	30								
Pr005=	0								
Pr006=	10000								
Pr007=	0								
Pr008=	1								
Pr009=	*****								
Pr010=	*****								
Pr011=	0								
Pr012=	*****								
Pr013=	*****								
Pr014=	*****								
Pr015=	*****								
SAVE OK?(Y/N)									
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

- If the edited contents are to be saved in the file that is displayed at the Input Line, just press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
P000= ***** P001= 30000 P002= 10000 P003= 2000 P004= 30 P005= 0 P006= 10000 P007= 0 P008= 1 P009= ***** P010= ***** P011= 0 P012= ***** P013= ***** P014= ***** P015= *****					File Name TEST1.PRM				
<<Key Input>>									
File Name = TEST1									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

- If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.

<< MP PARAMETER >>					OFF LINE				
P000= ***** P001= 30000 P002= 10000 P003= 2000 P004= 30 P005= 0 P006= 10000 P007= 0 P008= 1 P009= ***** P010= ***** P011= 0 P012= ***** P013= ***** P014= ***** P015= *****					File Name TEST1.PRM				
<<Key Input>>									
File Name = TEST2									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

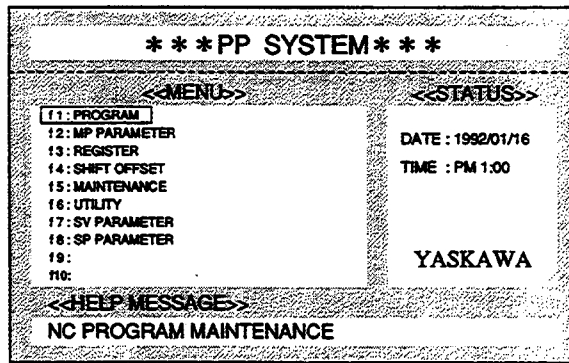
The "SAVE START" message will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< MP PARAMETER >>					OFF LINE				
P000= ***** P001= 30000 P002= 10000 P003= 2000 P004= 30 P005= 0 P006= 10000 P007= 0 P008= 1 P009= ***** P010= ***** P011= 0 P012= ***** P013= ***** P014= ***** P015= *****					File Name TEST1.PRM				
SAVE START <<Key Input>>									
File Name = TEST1									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

4.2 CONTROLLER PARAMETER OPERATIONS (OFFLINE)

The display will return to the MENU Screen when saving is completed.



5 REGISTER OPERATIONS

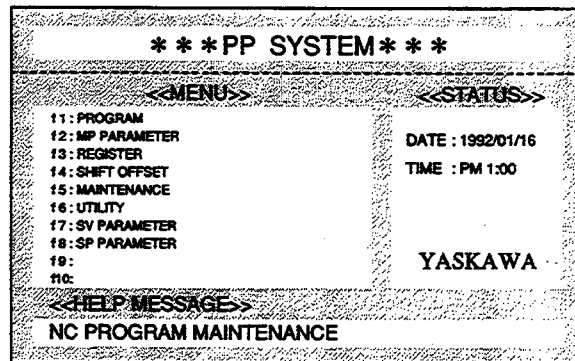
5.1 REGISTER OPERATIONS (ONLINE)

The changing, uploading, and downloading of the registers are performed as explained below.

When a changing operation is performed in the online mode, the contents of the MOTIONPACK registers will be changed immediately. Thus the contents of the MOTIONPACK registers and the contents of the registers in the editing screen will be matched.

5.1.1 Basic Operations

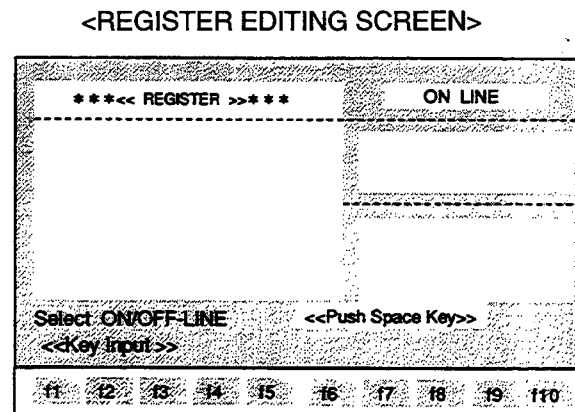
1. Select "REGISTER" from the MENU Screen and press the f3 Key.
The Register Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively.

When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.



5.1 REGISTER OPERATIONS (ONLINE)

The contents of the registers set in MOTIONPACK will be displayed.
The registers in the next page can be monitored by pressing the ROLL UP Key.

<< REGISTER >>										ON LINE	
R01	*****										
R02	90000										
R03	10000										
R04	2000										
R05	30										
R06	0										
R07	10000										
R08	0										
R09	1										
R10	*****										
R11	*****										
R12	0										
R13	*****										
R14	*****										
R15	*****										
R16	*****										
<<Key input >>											
R01	*****										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA				EXIT	FRUP	FDON	VERE	STY			

5.1 REGISTER OPERATIONS (ONLINE)

5.1.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

f1 SEA : Search for character string

f2 :

f3 :

f4 :

f5 EXIT : Exiting

f6 FDUP : Upload

f7 FDDN : Download

f8 VERF : Verify

f9 STY : Status display

f10 :

5.1 REGISTER OPERATIONS (ONLINE)

5.1.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated register number is searched for from the current cursor position.

1. Enter "07" following the "R" at the Input Line.

<< REGISTER >>					ON LINE				
R01	*****								
R02	30000								
R03	10000								
R04	2000								
R05	30								
R06	0								
R07	10000								
R08	0								
R09	1								
R10	*****								
R11	*****								
R12	0								
R13	*****								
R14	*****								
R15	*****								
R16	*****								
<<key input>>									
R 01	*****								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

2. Press the f1 (SEA) Key.

The cursor will move to R07 line.

<< REGISTER >>					ON LINE				
R01	*****								
R02	30000								
R03	10000								
R04	2000								
R05	30								
R06	0								
R07	10000								
R08	0								
R09	1								
R10	*****								
R11	*****								
R12	0								
R13	*****								
R14	*****								
R15	*****								
R16	*****								
<<key input>>									
R 07	10000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

5.1 REGISTER OPERATIONS (ONLINE)

< Register Changing Method >

To rewrite to "R07 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the register and press the BS Key or the DEL Key.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	0								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
<<Key Input>>									
R 07 = <input type="text"/>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

2. Enter "5000" and press the Enter Key

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	0								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
<<Key Input>>									
R 07 = 5000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

The register will be changed.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	5000								
R08=	0								
R09=	1								
R10=	*****								
R11=	0								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
<<Key Input>>									
R 07 = 5000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

If a change to "R06 = 5000" was made by mistake when the change to "R07 = 5000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

5.1 REGISTER OPERATIONS (ONLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
EXIT OK?(Y/N)									
<Key Input>									
R 07 = 10000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDOF	PDON	VERP	STY	

2. When "Y" is entered, editing will be completed and the display will return to the MENU Screen.
When a character other than "Y" is entered, editing will be continued.

*** PP SYSTEM ***									
<<MENU>>					<<STATUS>>				
11: PROGRAM					DATE : 1992/01/16				
12: MP PARAMETER					TIME : PM 1:00				
13: REGISTER									
14: SHIFT OFFSET									
15: MAINTENANCE									
16: UTILITY									
17: SV PARAMETER									
18: SP PARAMETER									
19:									
110:									
YASKAWA									
<<HELP MESSAGE>>									
NC PROGRAM MAINTENANCE									

5.1 REGISTER OPERATIONS (ONLINE)

■ f6 (FDUP) Upload

Registers are read in from MOTIONPACK.

1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.

<< REGISTER >>										ON LINE	
File Name Input											
<<Key Input>>											
f11	f12	f13	f14	f15	f16	f17	f18	f19	f10		
SEA				EXIT	FDUP	FDON	VERP	STY			

2. Enter the file name and press the Enter Key.

Uploading will be started.

<< REGISTER >>										ON LINE	
<<Key Input>>											
TEST											
f11	f12	f13	f14	f15	f16	f17	f18	f19	f10		
SEA				EXIT	FDUP	FDON	VERP	STY			

5.1 REGISTER OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.

<< REGISTER >>					ON LINE				
R01- *****									
R02- 30000									
R03- 10000									
R04- 2000									
R05- 30									
R06- 0									
R07- 10000									
R08- 0									
R09- 1									
R10- *****									
R11- *****									
R12- 0									
R13- *****									
R14- *****									
R15- *****									
R16- *****									
Up Load Start Push [ESC] key exit									
<<Key input>>									
[PP] << [MP]									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line.

<< REGISTER >>					ON LINE				
R01- *****									
R02- 30000									
R03- 10000									
R04- 2000									
R05- 30									
R06- 0									
R07- 10000									
R08- 0									
R09- 1									
R10- *****									
R11- *****									
R12- 0									
R13- *****									
R14- *****									
R15- *****									
R16- *****									
<<Key input>>									
Up Load End									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

5.1 REGISTER OPERATIONS (ONLINE)

■ f7 (FDDN) Download

Registers are written into MOTIONPACK.

1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< REGISTER >>					ON LINE				
TEST1.REG	TEST2.REG	TEST3.REG							
TEST4.REG	TEST5.REG	TEST6.REG							
<Key Input>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDDP	FDDN	VERF	STY	

2. Select the file name using the Cursor Keys and press the Enter Key.

Downloading will begin.

<< REGISTER >>					ON LINE				
TEST1.REG	TEST2.REG	TEST3.REG							
TEST4.REG	TEST5.REG	TEST6.REG							
<Key Input>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDDP	FDDN	VERF	STY	

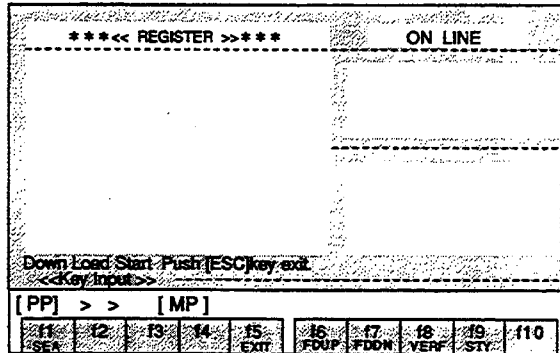
5.1 REGISTER OPERATIONS (ONLINE)

During downloading, the following message are displayed:

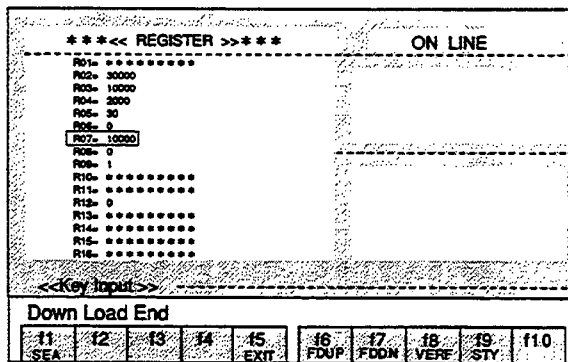
At the Status Line, "Down Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.



3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line.



5.1 REGISTER OPERATIONS (ONLINE)

■ f8 (VERF) Verify

The MOTIONPACK registers are verified with the contents of the registers of the designated file.

1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< REGISTER >>					ON LINE						
TEST1.REG			TEST2.REG			TEST3.REG					
TEST4.REG			TEST5.REG			TEST6.REG					
<<Key Input>>											
11	12	13	14	15	16	17	18	19	110		
SEA				EXIT	FDUP	FDON	VERF	STY			

2. Select the file name using the Cursor Keys and press the Enter Key.

The MOTIONPACK registers are verified with the registers in the selected file.

<< REGISTER >>					ON LINE						
TEST1.REG			TEST2.REG			TEST3.REG					
TEST4.REG			TEST5.REG			TEST6.REG					
<<Key Input>>											
11	12	13	14	15	16	17	18	19	110		
SEA				EXIT	FDUP	FDON	VERF	STY			

5.1 REGISTER OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:

In the Text Screen, the contents of the MOTIONPACK registers will be displayed.

At the Input Line, the contents of the registers in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification.

The "Verify End" message will be displayed after completing verification.

Verification will be interrupted when the ESC Key is pressed during verification.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
Verify Start Push [ESC] key exit									
<<Key input>>									
R05= 30									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXT	FDUP	FDON	VERF	STY	

- If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
Verify error. continue? [Y/N]									
<<Key input>>									
R07= 10000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXT	FDUP	FDON	VERF	STY	

5.1 REGISTER OPERATIONS (ONLINE)

■ f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****				MODE = NONE				
R11=	*****				POSITION = 14.385				
R12=	0				N NO = NOT START				
R13=	*****				SPEED = 0				
R14=	*****				WAIT = not auto				
R15=	*****				ALM = ALM				
R16=	*****								
<<Key input>>									
R01= *****									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXT	EQP	EQN	VER	STY	

2. Press the f9 (STY) Key again.

The status display will disappear.

<< REGISTER >>					ON LINE				
R01=	*****								
R02=	30000								
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
<<Key input>>									
R01= *****									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXT	EQP	EQN	VER	STY	

5.2 REGISTER OPERATIONS (OFFLINE)

5.2 REGISTER OPERATIONS (OFFLINE)

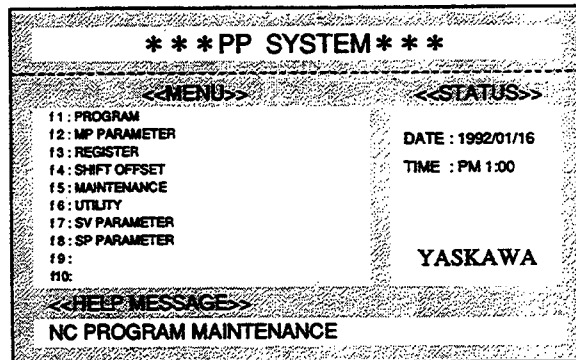
The changing, uploading, and downloading of the registers are performed as explained below. File editing is performed in the offline mode.

The edited contents will become lost if editing is ended without performing the save operation.

5.2.1 Basic Operations

1. Select "REGISTER" from the MENU Screen and press the f3 Key.

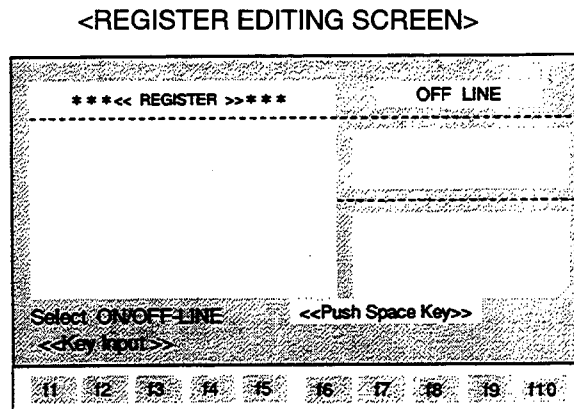
The Register Editing Screen will be displayed.



2. Select ONLINE or OFFLINE .

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively.

When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.



5.2 REGISTER OPERATIONS (OFFLINE)

- The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< REGISTER >>						OFF LINE			
TEST1.REG	TEST2.REG	TEST3.REG							
TEST4.REG	TEST5.REG	TEST6.REG							
Select File Name									
<<Key Input>>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10

The contents of the registers in the designated file will be displayed.
The registers in the next page can be monitored by pressing the ROLL UP Key.

<< REGISTER >>						OFF LINE			
R01= *****						File Name			
R02= 10000						TEST1.REG			
R03= 10000									
R04= 2000									
R05= 30									
R06= 0									
R07= 10000									
R08= 0									
R09= 1									
R10= *****									
R11= *****									
R12= 0									
R13= *****									
R14= *****									
R15= *****									
R16= *****									
<<Key Input>>									
R01= *****									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA	LOAD	SAVE	EXT						

5.2 REGISTER OPERATIONS (OFFLINE)

5.2.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

f1 SEA : Search for character string

f2 :

f3 LOAD : Loading of file

f4 SAVE : Save in file

f5 EXIT : Exiting

f6 :

f7 :

f8 :

f9 :

f10 :

5.2 REGISTER OPERATIONS (OFFLINE)

5.2.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated register number is searched for from the current cursor position.

1. Enter "07" following the "R" at the Input Line.

<< REGISTER >>										OFF LINE	
R01=	*****									File Name	
R02=	30000									TEST1.REG	
R03=	10000										
R04=	30										
R05=	0										
R06=	10000										
R07=	0										
R08=	1										
R10=	*****										
R11=	*****										
R12=	0										
R13=	*****										
R14=	*****										
R15=	*****										
R16=	*****										
<<Key Input>>											
R01=	*****										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT							

2. Press the f1 (SEA) Key.

The cursor will move to R07 line.

<< REGISTER >>										OFF LINE	
R01=	*****									File Name	
R02=	30000									TEST1.REG	
R03=	10000										
R04=	30										
R05=	0										
R07=	10000										
R08=	0										
R08=	1										
R10=	*****										
R11=	*****										
R12=	0										
R13=	*****										
R14=	*****										
R15=	*****										
R16=	*****										
<<Key Input>>											
R07=	10000										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT							

5.2 REGISTER OPERATIONS (OFFLINE)

< Register Changing Method >

To rewrite to "R07 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the register and press the BS Key or the DEL Key.

<< REGISTER >>					OFF LINE				
R01= ***** R02= 30000 R03= 10000 R04= 2000 R05= 30 R06= 0 R07= 10000 R08= 0 R09= 1 R10= ***** R11= ***** R12= 0 R13= ***** R14= ***** R15= ***** R16= *****					File Name TEST1.PRM				
<<Key Input>>									
R 07 =									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

2. Enter "5000" and press the Enter Key.

<< REGISTER >>					OFF LINE				
R01= ***** R02= 30000 R03= 10000 R04= 2000 R05= 30 R06= 0 R07= 10000 R08= 0 R09= 1 R10= ***** R11= ***** R12= 0 R13= ***** R14= ***** R15= ***** R16= *****					File Name TEST1.PRM				
<<Key Input>>									
R 07 = 5000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

The register will be changed.

<< REGISTER >>					OFF LINE				
R01= ***** R02= 30000 R03= 10000 R04= 2000 R05= 30 R06= 0 R07= 5000 R08= 0 R09= 1 R10= ***** R11= ***** R12= 0 R13= ***** R14= ***** R15= ***** R16= *****					File Name TEST1.PRM				
<<Key Input>>									
R 07 = 5000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

If a change to "R06 = 5000" was made by mistake when the change to "R07 = 5000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see f4 (SAVE)).

5.2 REGISTER OPERATIONS (OFFLINE)

■ f3 (LOAD) Loading of file

The data of the designated file are transferred to the RAM of the personal computer.

1. Press the f3 (LOAD) Key.

<< REGISTER >>					OFF LINE				
R01- *****									
R02- 30000									
R03- 10000									
R04- 2000									
R05- 30									
R06- 0									
R07- 10000									
R08- 0									
R09- 1									
R10- *****									
R11- *****									
R12- 0									
R13- *****									
R14- *****									
R15- *****									
R16- *****									
<<Key Input>>									
R 01 = *****									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

2. The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< REGISTER >>					OFF LINE				
TEST1.REG	TEST2.REG	TEST3.REG							
TEST4.REG	TEST5.REG	TEST6.REG							
Select File Name									
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10

The contents of the selected file will be displayed in the Text Screen.

<< REGISTER >>					OFF LINE				
TEST 1									
R02- 30000									
R03- 10000									
R04- 2000									
R05- 30									
R06- 0									
R07- 10000									
R08- 0									
R09- 1									
R10- 0									
R11- *****									
R12- 0									
R13- *****									
R14- *****									
R15- *****									
R16- *****									
Load End									
<<Key Input>>									
R 01 = 0									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

5.2 REGISTER OPERATIONS (OFFLINE)

■ f4 (SAVE) Save in file

The data in the RAM of the personal computer are saved in a file.

1. Press the f4 (SAVE) Key.
2. If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.

<< REGISTER >>					OFF LINE				
R01=	*****				File Name				
R02=	30000				TEST1.REG				
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
<<key input>>									
File Name = TEST1_									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

If the data are to be saved in a new file, enter the file name and then press the Enter Key.

<< REGISTER >>					OFF LINE				
R01=	0				File Name				
R02=	30000				TEST1.REG				
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	1								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	0								
<<key input>>									
File Name = TEST10_									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

5.2 REGISTER OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< REGISTER >>					OFF LINE					
R01=	*****					File Name				
R02=	30000					TEST1.REG				
R03=	10000									
R04=	2000									
R05=	30									
R06=	0									
R07=	10000									
R08=	0									
R09=	1									
R10=	*****									
R11=	*****									
R12=	0									
R13=	*****									
R14=	*****									
R15=	*****									
R16=	*****									
SAVE START										
<<Key Input>>										
R 07 = 10000										
11	12	13	14	15	16	17	18	19	110	
SEA		LOAD	SAVE	EXIT						

<< REGISTER >>					OFF LINE					
R01=	*****					File Name				
R02=	30000					TEST1.REG				
R03=	10000									
R04=	2000									
R05=	30									
R06=	0									
R07=	10000									
R08=	0									
R09=	1									
R10=	*****									
R11=	*****									
R12=	0									
R13=	*****									
R14=	*****									
R15=	*****									
R16=	*****									
SAVE END										
<<Key Input>>										
R 07 = 10000										
11	12	13	14	15	16	17	18	19	110	
SEA		LOAD	SAVE	EXIT						

5.2 REGISTER OPERATIONS (OFFLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.
The "EXIT OK?(Y/N)" message will be displayed at the Status Line.
2. Enter "Y".
When a character other than "Y" is entered, editing will be continued.

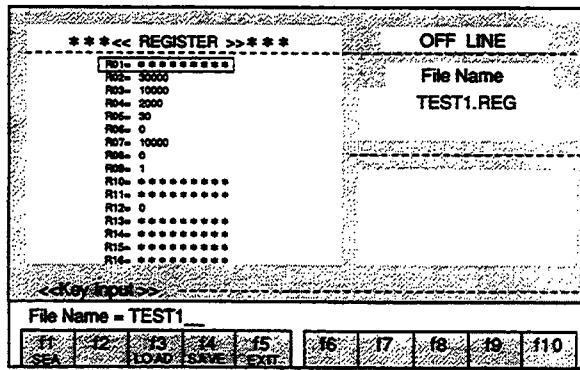
<< REGISTER >>					OFF LINE				
R01=	*****				File Name				
R02=	30000				TEST1.REG				
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
EXIT OK (Y/N)									
<<key input>>									
R 07= 10000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

3. The "SAVE OK? (Y/N)" message will be displayed at the Status Line.
Enter "Y".
When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.

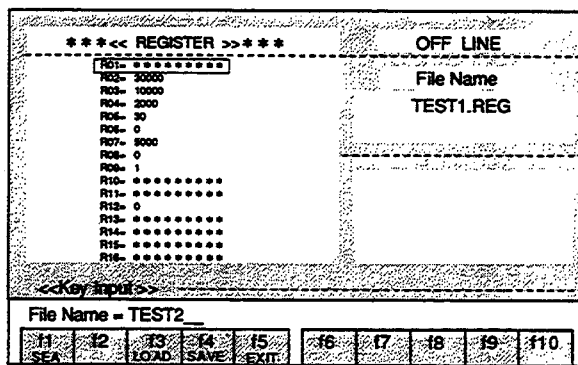
<< REGISTER >>					OFF LINE				
R01=	*****				File Name				
R02=	30000				TEST1.REG				
R03=	10000								
R04=	2000								
R05=	30								
R06=	0								
R07=	10000								
R08=	0								
R09=	1								
R10=	*****								
R11=	*****								
R12=	0								
R13=	*****								
R14=	*****								
R15=	*****								
R16=	*****								
SAVE OK (Y/N)									
<<key input>>									
R 07= 10000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

5.2 REGISTER OPERATIONS (OFFLINE)

4. If the edited contents are to be saved in the file that is displayed at the Input Line, just press the Enter Key.

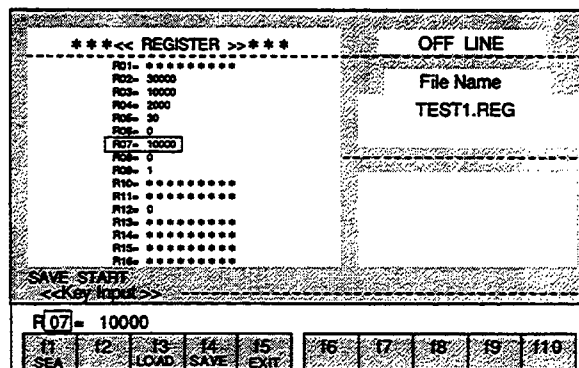


If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.



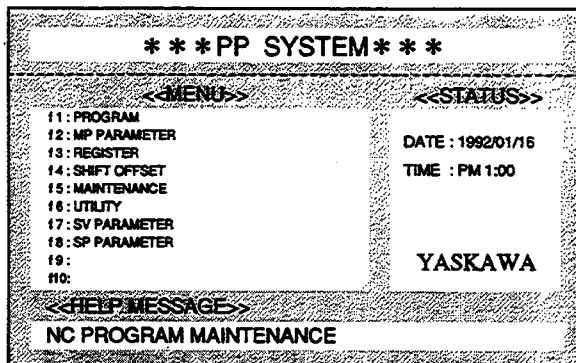
The "SAVE START" message will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.



5.2 REGISTER OPERATIONS (OFFLINE)

The display will return to the MENU Screen when saving is completed.



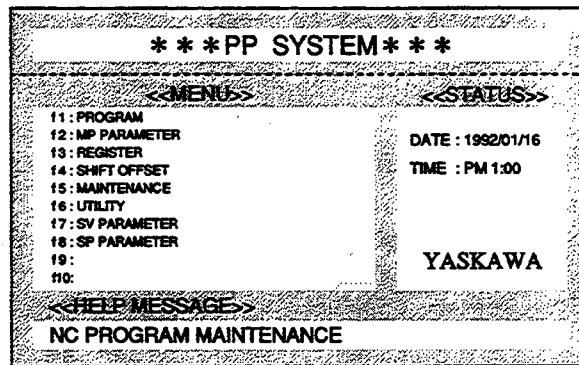
6 SHIFT AND OFFSET OPERATIONS

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

The changing, uploading, and downloading of the shift/offset values are performed as explained below. When a changing operation is performed in the online mode, the shift/offset values of MOTIONPACK will be changed immediately. Thus the shift/offset values of MOTIONPACK and the shift/offset values in the editing screen will be matched.

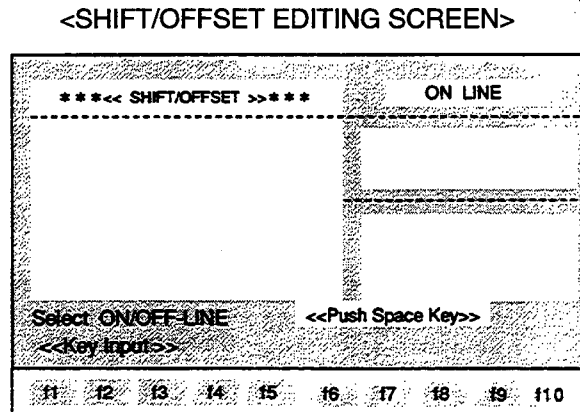
6.1.1 Basic Operations

1. Select "SHIFT/OFFSET" from the MENU Screen and press the f4 Key.
The Shift/Offset Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.



6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

The contents of the shift/offset values set in MOTIONPACK will be displayed.
The shift/offset values in the next page can be monitored by pressing the ROLL UP Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT		S1	-100.000						
		S2	-100.000						
		S3	-100.000						
		S4	-100.000						
		S5	-100.000						
		S6	-100.000						
		S7	-100.000						
		S8	-100.000						
		S9	-100.000						
OFFSET		O8	-0.000						
		O9	-0.000						
<<Key Input>>									
S 1		-100.000							
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDOV	VERF	STY	CHG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

6.1.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG

- f1 SEA : Search for character string
- f2 :
- f3 :
- f4 :
- f5 EXIT : Exiting
- f6 FDUP : Upload
- f7 FDDN : Download
- f8 VERF : Verify
- f9 STY : Status display
- f10 CHG : Switching between input of shift and input of offset

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

6.1.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated shift/offset number is searched for from the current cursor position.

1. Enter "6" following the "S" at the Input Line.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=-100.000								
	S2=-100.000								
	S3=-100.000								
	S4=-100.000								
	S5=-100.000								
	S6=-100.000								
	S7=-100.000								
	S8=-100.000								
	S9=-100.000								
OFFSET	O8=0.000								
	O9=0.000								
<<Key Input>>									
S6 = -100.000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERF	STY	CHG

2. Press the f1 (SEA) Key.

The cursor will move to S6 line.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=-100.000								
	S2=-100.000								
	S3=-100.000								
	S4=-100.000								
	S5=-100.000								
	S6=-100.000								
	S7=-100.000								
	S8=-100.000								
	S9=-100.000								
OFFSET	O8=0.000								
	O9=0.000								
<<Key Input>>									
S6 = -100.000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERF	STY	CHG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

< Shift Changing Method >

To rewrite to "S6 = 300.000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the shift data value and press the BS Key or the DEL Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=100.000								
	S2=100.000								
	S3=100.000								
	S4=100.000								
	S5=100.000								
	S6=100.000								
	S7=100.000								
	S8=100.000								
	S9=100.000								
OFFSET	O8=0.000								
	O9=0.000								
<<Key Input>>									
S 6 = <input type="text"/>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG

2. Enter "300" and press the Enter Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=100.000								
	S2=100.000								
	S3=100.000								
	S4=100.000								
	S5=100.000								
	S6=100.000								
	S7=100.000								
	S8=100.000								
	S9=100.000								
OFFSET	O8=0.000								
	O9=0.000								
<<Key Input>>									
S 6 = <input type="text" value="300"/>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG

The shift value will be changed.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=100.000								
	S2=100.000								
	S3=100.000								
	S4=100.000								
	S5=100.000								
	S6=300.000								
	S7=100.000								
	S8=100.000								
	S9=100.000								
OFFSET	O8=0.000								
	O9=0.000								
<<Key Input>>									
S 6 = <input type="text" value="300"/>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG

If a change to "S7 = 300.000" was made by mistake when the change to "S6 = 300.000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

< Offset Changing Method >

1. Press the f10 (CHG) Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=	100.000							
	S2=	100.000							
	S3=	100.000							
	S4=	100.000							
	S5=	100.000							
	S6=	100.000							
	S7=	100.000							
	S8=	100.000							
	S9=	100.000							
OFFSET	O8=	0.000							
	O9=	0.000							
<<Key Input>>									
S6 = 100.000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERP	STY	CHG

The cursor will switch from shift to offset.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=	100.000							
	S2=	100.000							
	S3=	100.000							
	S4=	100.000							
	S5=	100.000							
	S6=	100.000							
	S7=	100.000							
	S8=	100.000							
	S9=	100.000							
OFFSET	O8=	0.000							
	O9=	0.000							
<<Key Input>>									
O8 = 0.000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERP	STY	CHG

2. To rewrite to "O8 = 0.123", use the Right or Left Cursor Key to move the cursor of the Input Line to the offset data value and press the BS Key or the DEL Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=	100.000							
	S2=	100.000							
	S3=	100.000							
	S4=	100.000							
	S5=	100.000							
	S6=	100.000							
	S7=	100.000							
	S8=	100.000							
	S9=	100.000							
OFFSET	O8=	0.000							
	O9=	0.000							
<<Key Input>>									
O8 =									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERP	STY	CHG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

3. Enter "0.123" and press the Enter Key.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=	100.000							
	S2=	100.000							
	S3=	100.000							
	S4=	100.000							
	S5=	100.000							
	S6=	100.000							
	S7=	100.000							
	S8=	100.000							
	S9=	100.000							
OFFSET	OS=	0.000							
	OS=	0.000							
<<Key Input>>									
OS=0.123									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERP	STY	CRG

The offset value will be changed.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT	S1=	100.000							
	S2=	100.000							
	S3=	100.000							
	S4=	100.000							
	S5=	100.000							
	S6=	100.000							
	S7=	100.000							
	S8=	100.000							
	S9=	100.000							
OFFSET	OS=	0.123							
	OS=	0.000							
<<Key Input>>									
OS=0.123									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERP	STY	CRG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

<< SHIFT/OFFSET >>		ON LINE
SHIFT	S1=-100.000	
	S2=-100.000	
	S3=-100.000	
	S4=-100.000	
	S5=-100.000	
	S6=-100.000	
	S7=-100.000	
	S8=-100.000	
	S9=-100.000	
OFFSET	O1=0.000	
	O2=0.000	
EXIT OK?(Y/N)		
<Key Input>		
S6 = -100.000		
F1	F2	F3
SEA		
F4	F5	F6
EXP		FOF
F7	F8	F9
FOON	KEPF	CSL
F10		
CHK		

2. When "Y" is entered, editing will be completed and the display will return to the MENU Screen.
When a character other than "Y" is entered, editing will continue.

*** PP SYSTEM ***	
<<MENU>>	<<STATUS>>
11: PROGRAM	DATE : 1992/01/16
12: MP PARAMETER	TIME : PM 1:00
13: REGISTER	
14: SHIFT OFFSET	
15: MAINTENANCE	
16: UTILITY	
17: SV PARAMETER	
18: SP PARAMETER	
19:	
10:	
<<HELP MESSAGE>>	
NC PROGRAM MAINTENANCE	

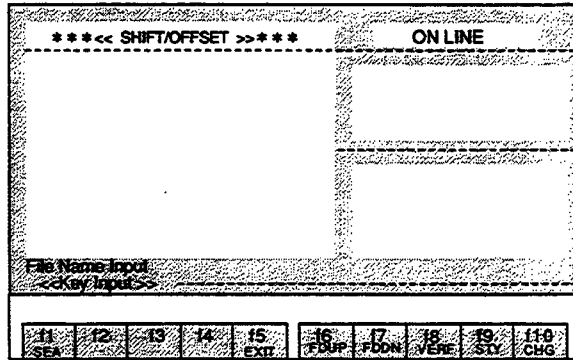
6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f6 (FDUP) Upload

Shift values are read in from MOTIONPACK.

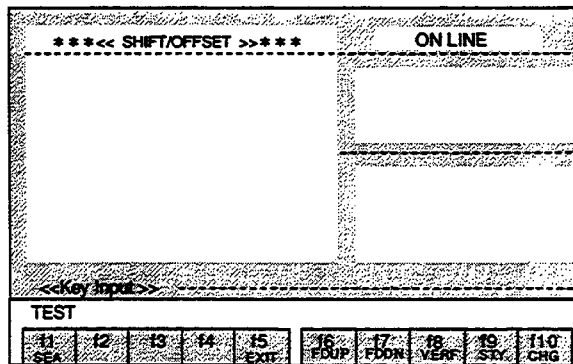
1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.



2. Enter the file name and press the Enter Key.

Uploading will begin.



6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.

<< SHIFT/OFFSET >>										ON LINE					
SHIFT		S1=100.000	S2=100.000	S3=100.000	S4=100.000	S5=100.000	S6=100.000	S7=100.000	S8=100.000	S9=100.000					
OFFSET		O8=0.000	O9=0.000												
Up Load Start Push [ESC] key exit															
<<Key Input>>															
[PP] <<		[MP]													
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10						
SEA				EXIT	FOUR	FUDN	VERI	STY	CHG						

3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line.

By switching to offset values with the f10 (CHG) Key, the uploading of offset values can be performed with the same operations as the above.

<< SHIFT/OFFSET >>										ON LINE					
SHIFT		S1=100.000	S2=100.000	S3=100.000	S4=100.000	S5=100.000	S6=100.000	S7=100.000	S8=100.000	S9=100.000					
OFFSET		O8=0.000	O9=0.000												
Up Load End															
<<Key Input>>															
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10						
SEA				EXIT	FOUR	FUDN	VERI	STY	CHG						

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f7 (FDDN) Download

Shift values are written into MOTIONPACK.

1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< SHIFT/OFFSET >>					ON LINE				
TEST1.SFT	TEST2.SFT	TEST3.SFT							
TEST4.SFT	TEST5.SFT	TEST6.SFT							
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDDP	FDDN	VERF	STY	CHG

2. Select the file name using the Cursor Keys and press the Enter Key.

Downloading will be started.

<< SHIFT/OFFSET >>					ON LINE				
TEST1.SFT	TEST2.SFT	TEST3.SFT							
TEST4.SFT	TEST5.SFT	TEST6.SFT							
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDDP	FDDN	VERF	STY	CHG

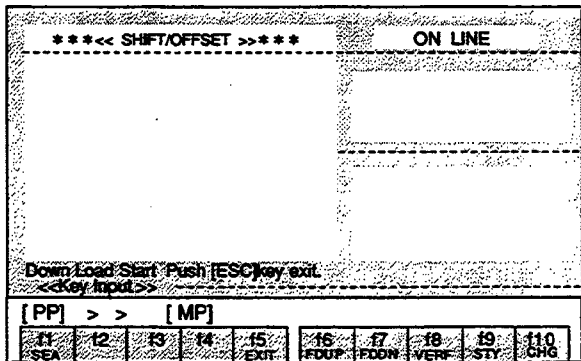
6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

During downloading, the following messages are displayed:

At the Status Line, "Down Load Start Push [ESC] key exit" message will be displayed.

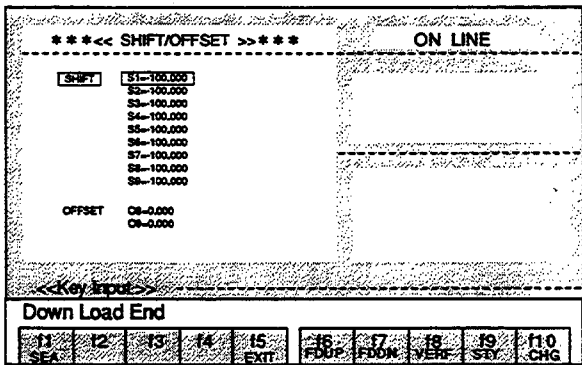
At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.



3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line .

By switching to offset values with the f10 (CHG) Key, the downloading of offset values can be performed with the same operations as the above.



6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f8 (VERF) Verify

The shift values of MOTIONPACK are verified with the shift values of the designated file.

1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< SHIFT/OFFSET >>					ON LINE				
TEST1.SFT	TEST2.SFT	TEST3.SFT							
TEST4.SFT	TEST5.SFT	TEST6.SFT							
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110
SEA				EXIT	EDP	EDON	VERF	STX	CRG

2. Select the file name using the Cursor Keys and press the Enter Key.

The shift values of MOTIONPACK are verified with the shift values in the selected file.

<< SHIFT/OFFSET >>					ON LINE				
TEST1.SFT	TEST2.SFT	TEST3.SFT							
TEST4.SFT	TEST5.SFT	TEST6.SFT							
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110
SEA				EXIT	EDP	EDON	VERF	STX	CRG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:
 In the Text Screen, the shift values of MOTIONPACK will be displayed.
 At the Input Line, the shift values in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification.
 The "Verify End" message will be displayed after completing verification.

Verification will be interrupted when the ESC Key is pressed during verification.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT									
S1	100.000								
S2	100.000								
S3	100.000								
S4	100.000								
S5	100.000								
S6	100.000								
S7	100.000								
S8	100.000								
S9	100.000								
OFFSET									
O8	0.000								
O9	0.000								
Verify Start Push [ESC] key exit									
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERF	STY	CHG

- If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.

By switching to offset values with the f10 (CHG) Key, the verification of offset values can be performed with the same operations as the above.

<< SHIFT/OFFSET >>					ON LINE				
SHIFT									
S1	100.000								
S2	100.000								
S3	100.000								
S4	100.000								
S5	100.000								
S6	100.000								
S7	100.000								
S8	100.000								
S9	100.000								
OFFSET									
O8	0.000								
O9	0.000								
Verify error. continue? [Y/N]									
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDON	VERF	STY	CHG

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.

<< SHIFT/OFFSET >>					ON LINE					
SHIFT	S1=-100.000	S2=-100.000	S3=-100.000	S4=-100.000	S5=-100.000	S6=-100.000	S7=-100.000	S8=-100.000	S9=-100.000	MODE = NONE
OFFSET	O8=0.000	O9=0.000								POSITION = 14.335
										N NO = NOT START
										SPEED = 0
										WAIT = non auto
										ALM = ALM
<<Key input>>										
S 1 = -100.000										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	
SEA				EXIT	FDUP	FDOV	VERF	STY	CHG	

2. Press the f9 (STY) Key again.

The status display will disappear.

<< SHIFT/OFFSET >>					ON LINE					
SHIFT	S1=-100.000	S2=-100.000	S3=-100.000	S4=-100.000	S5=-100.000	S6=-100.000	S7=-100.000	S8=-100.000	S9=-100.000	
OFFSET	O8=0.000	O9=0.000								
<<Key input>>										
S 1 = -100.000										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	
SEA				EXIT	FDUP	FDOV	VERF	STY	CHG	

6.1 SHIFT AND OFFSET OPERATIONS (ONLINE)

■ f10 (CHG) Switching between shift and offset input

1. Press the f10 (CHG) Key.

The cursor in the SHIFT area will move to the OFFSET area.

<< SHIFT/OFFSET >>										ON LINE	
SHIFT		S1=100.000									
		S2=100.000									
		S3=100.000									
		S4=100.000									
		S5=100.000									
		S6=100.000									
		S7=100.000									
		S8=100.000									
		S9=100.000									
OFFSET		OB=0.000									
		OC=0.000									
<<Key Input>>											
S1 = -100.000											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG		

2. Press the f10 (CHG) Key again.

The cursor in the OFFSET area will move to the SHIFT area.

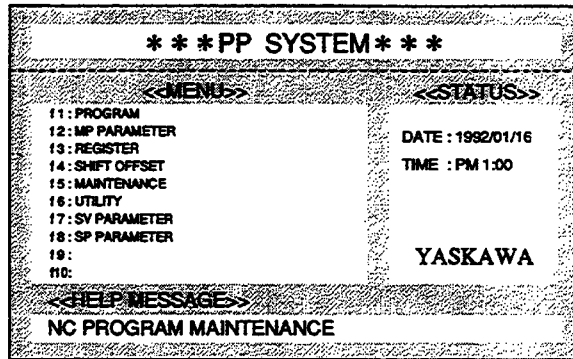
<< SHIFT/OFFSET >>										ON LINE	
SHIFT		S1=100.000									
		S2=100.000									
		S3=100.000									
		S4=100.000									
		S5=100.000									
		S6=100.000									
		S7=100.000									
		S8=100.000									
		S9=100.000									
OFFSET		OB=0.000									
		OC=0.000									
<<Key Input>>											
S1 = -100.000											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA				EXIT	FDUP	FDDN	VERF	STY	CHG		

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

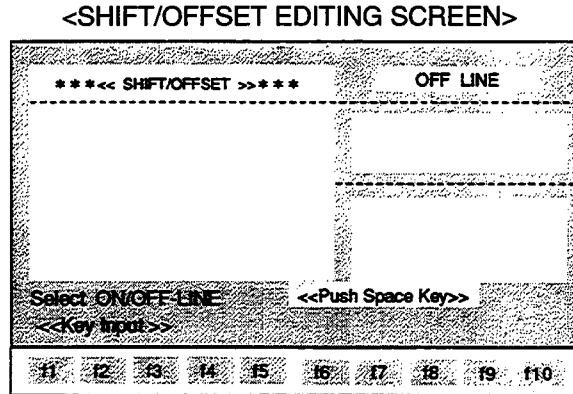
The changing, uploading, and downloading of the shift/offset are performed as explained below. File editing is performed in the offline mode. The edited contents will become lost if editing is terminated without performing the save operation.

6.2.1 Basic Operations

- 1. Select "SHIFT/OFFSET" from the MENU Screen and press the f4 Key. The Shift/Offset Editing Screen will be displayed.



- 2. Select ONLINE or OFFLINE. When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.



6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

The File Selection Menu will be displayed.

Select the file name using the Cursor Keys and press the Enter Key.

<< SHIFT/OFFSET >>										OFF LINE
TEST1.SFT	TEST2.SFT	TEST3.SFT								
TEST4.SFT	TEST5.SFT	TEST6.SFT								
Select File Name										
<<Key Input>>										
11	12	13	14	15	16	17	18	19	110	

The contents of the shifts in the designated file will be displayed.

The shifts in the next page can be monitored by pressing the ROLL UP Key.

<< SHIFT/OFFSET >>										OFF LINE
SHIFT	S1=-100.000									
	S2=-100.000									
	S3=-100.000									
	S4=-100.000									
	S5=-100.000									
	S6=-100.000									
	S7=-100.000									
	S8=-100.000									
	S9=-100.000									
OFFSET	OL-*****									
	OL-*****									
<<key Input>>										
S 1 = -100.000										
11	12	13	14	15	16	17	18	19	110	
SEA		LOAD	SAVE	EXIT						CHG

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

6.2.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					CHG

f1 SEA : Search for character string

f2 :

f3 LOAD : Loading of file

f4 SAVE : Save in file

f5 EXIT : Exiting

f6 :

f7 :

f8 :

f9 :

f10 CHG : Switching between input of shift and input of offset

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

6.2.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated shift/offset number is searched for from the current cursor position.

1. Enter "6" following the "S" at the Input Line.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000					File Name				
S2=-100.000					TEST1.SFT				
S3=-100.000									
S4=-100.000									
S5=-100.000									
S6=-100.000									
S7=-100.000									
S8=-100.000									
S9=-100.000									
OFFSET O8-*****									
O9-*****									
<<Key Input>>									
S6=-100.000									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					CHG

2. Press the f1 (SEA) Key.

The cursor will move to S6 line.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000					File Name				
S2=-100.000					TEST1.SFT				
S3=-100.000									
S4=-100.000									
S5=-100.000									
S6=-100.000									
S7=-100.000									
S8=-100.000									
S9=-100.000									
OFFSET O8-*****									
O9-*****									
<<Key Input>>									
S6=-100.000									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					CHG

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

< Shift Changing Method >

To rewrite to "S6 = 300.000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the shift data value and press the BS Key or the DEL Key.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=100.000 S2=100.000 S3=100.000 S4=100.000 S5=100.000 S6=100.000 S7=100.000 S8=100.000 S9=100.000					File Name TEST1.SFT				
OFFSET O1= O2=									
<<Key Input>>									
S 6 = <input type="text"/>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					CHG

2. Enter "300" and press the Enter Key.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=100.000 S2=100.000 S3=100.000 S4=100.000 S5=100.000 S6=100.000 S7=100.000 S8=100.000 S9=100.000					File Name TEST1.SFT				
OFFSET O1= O2=									
<<Key Input>>									
S 6 = <input type="text" value="300"/>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					CHG

The shift value will be changed.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=100.000 S2=100.000 S3=100.000 S4=100.000 S5=100.000 S6=300.000 S7=100.000 S8=100.000 S9=100.000					File Name TEST1.SFT				
OFFSET O1= O2=									
<<Key Input>>									
S 6 = <input type="text" value="300"/>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					CHG

If a change to "S7 = 300.000" was made by mistake when the change to "S6 = 300.000" was intended:
 If the Enter Key has not been pressed yet, press the ESC Key.
 The conditions will return to those prior to the change.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see f4 (SAVE)).

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

< Offset Changing Method >

1. Press the f10 (CHG) Key.

<< SHIFT/OFFSET >>										OFF LINE	
SHIFT S1=-100.000										File Name	
S2=-100.000										TEST1.SFT	
S3=-100.000											
S4=-100.000											
S5=-100.000											
S6=-100.000											
S7=-100.000											
S8=-100.000											
S9=-100.000											
OFFSET O8=*****											
O8=*****											
<<Key Input>>											
S 6 = -100.000											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT					CHG		

The cursor will switch from shift to offset.

<< SHIFT/OFFSET >>										OFF LINE	
SHIFT S1=-100.000											
S2=-100.000											
S3=-100.000											
S4=-100.000											
S5=-100.000											
S6=-100.000											
S7=-100.000											
S8=-100.000											
S9=-100.000											
OFFSET O8=*****											
O8=*****											
<<Key Input>>											
O8=*****											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT					CHG		

2. To rewrite to "O8 = 0.123", use the Right or Left Cursor Key to move the cursor of the Input Line to the offset data value and press the BS Key or the DEL Key.

<< SHIFT/OFFSET >>										OFF LINE	
SHIFT S1=-100.000											
S2=-100.000											
S3=-100.000											
S4=-100.000											
S5=-100.000											
S6=-100.000											
S7=-100.000											
S8=-100.000											
S9=-100.000											
OFFSET O8=*****											
O8=*****											
<<Key Input>>											
O8=											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT					CHG		

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

3. Enter "0.123" and press the Enter Key.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT	S1-	100.000							
	S2-	100.000							
	S3-	100.000							
	S4-	100.000							
	S5-	100.000							
	S6-	100.000							
	S7-	100.000							
	S8-	100.000							
	S9-	100.000							
OFFSET	OB-	*****							
	OB-	*****							
<<Key input>>									
OB-[0.123]									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEL		LOAD	SAVE	EXIT					CHG

The offset value will be changed.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT	S1-	100.000							
	S2-	100.000							
	S3-	100.000							
	S4-	100.000							
	S5-	100.000							
	S6-	100.000							
	S7-	100.000							
	S8-	100.000							
	S9-	100.000							
OFFSET	OB-	0.123							
	OB-	*****							
<<Key input>>									
OB-[0.123]									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEL		LOAD	SAVE	EXIT					CHG

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

■ f3 (LOAD) Loading of file

The data of the designated file are transferred to the RAM of the personal computer.

1. Press the f3 (LOAD) Key.

<< SHIFT/OFFSET >>										OFF LINE	
SHIFT S1-100.000 S2-100.000 S3-100.000 S4-100.000 S5-100.000 S6-100.000 S7-100.000 S8-100.000 S9-100.000										File Name	
OFFSET C0-***** C0-*****										TEST1.SFT	
<<Key Input>>											
S1 = -100.000											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		
SEA		LOAD	SAVE	EXIT					CHG		

2. The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< SHIFT/OFFSET >>										OFF LINE	
TEST1.SFT TEST2.SFT TEST3.SFT TEST4.SFT TEST5.SFT TEST6.SFT											
Select File Name											
<<Key Input>>											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		

The contents of the selected file will be displayed in the Text Screen.

By switching to offset values with the f10 (CHG) Key, the loading of offset values can be performed with the same operations as the above.

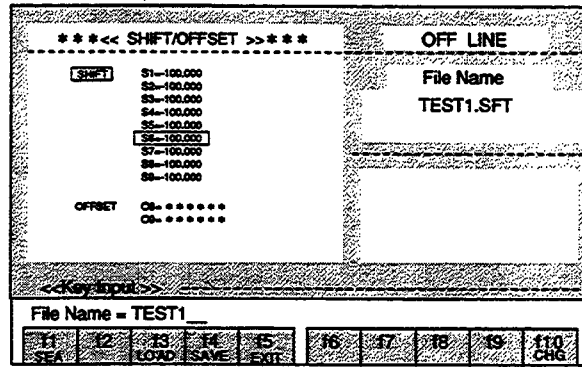
<< SHIFT/OFFSET >>										OFF LINE	
SHIFT S1-200.000 S2-100.000 S3-100.000 S4-100.000 S5-100.000 S6-100.000 S7-100.000 S8-100.000 S9-100.000										File Name	
OFFSET C0-***** C0-*****										TEST3.REG	
<<Key Input>>											
S1 = -200.000											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		
SEA		LOAD	SAVE	EXIT					CHG		

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

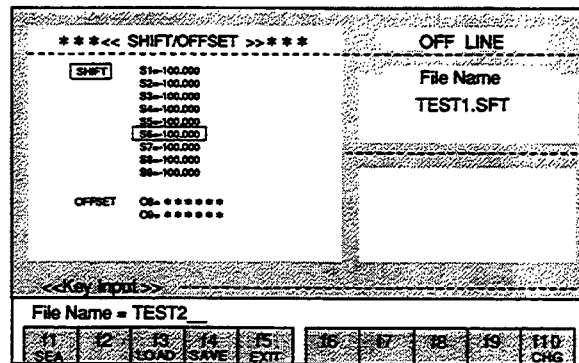
■ f4 (SAVE) Save in file

The data in the RAM of the personal computer are saved in a file.

1. Press the f4 (SAVE) Key.
2. If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.



If the data are to be saved in a new file, enter the file name and then press the Enter Key.



6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000 S2=-100.000 S3=-100.000 S4=-100.000 S5=-100.000 S6=-100.000 S7=-100.000 S8=-100.000 S9=-100.000					File Name TEST1.SFT				
OFFSET O1=***** O2=*****									
SAVE START <<Key Input>>									
S6 = -100.000									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXT					CHG

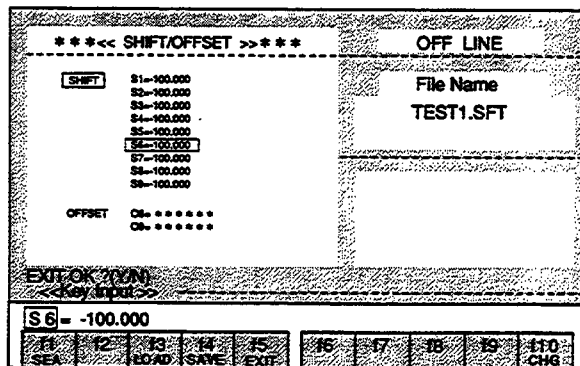
By switching to offset values with the f10 (CHG) Key, the saving of offset values can be performed with the same operations as the above.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000 S2=-100.000 S3=-100.000 S4=-100.000 S5=-100.000 S6=-100.000 S7=-100.000 S8=-100.000 S9=-100.000					File Name TEST1.SFT				
OFFSET O1=***** O2=*****									
SAVE END <<Key Input>>									
S6 = -100.000									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXT					CHG

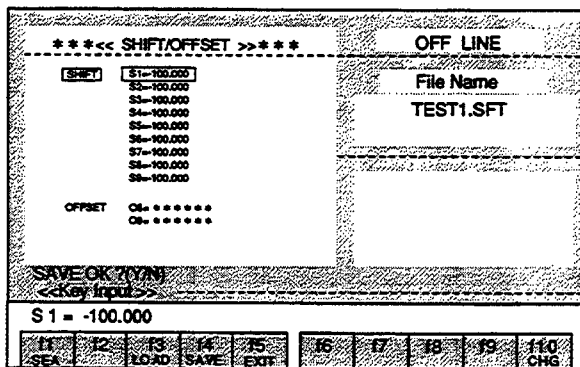
6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.
The "EXIT OK?(Y/N)" message will be displayed at the Status Line.
2. Enter "Y".
When a character other than "Y" is entered, editing will be continued.



3. The "SAVE OK? (Y/N)" message will be displayed at the Status Line.
Enter "Y".
When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.



6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

4. If the edited contents are to be saved in the file that is displayed at the Input Line, just press the Enter Key.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000 S2=-100.000 S3=-100.000 S4=-100.000 S5=-100.000 S6=-100.000 S7=-100.000 S8=-100.000 S9=-100.000 OFFSET O1=***** O2=*****					File Name TEST1.SFT				
<<Key Input>>									
File Name = TEST1_									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					CHG

If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000 S2=-100.000 S3=-100.000 S4=-100.000 S5=-100.000 S6=-100.000 S7=-100.000 S8=-100.000 S9=-100.000 OFFSET O1=***** O2=*****					File Name TEST1.SFT				
<<Key Input>>									
File Name = TEST2_									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					CHG

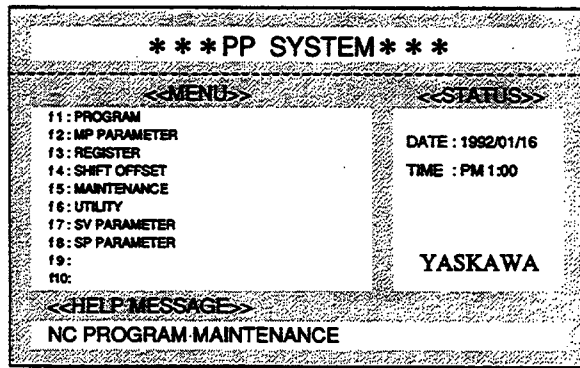
The "SAVE START" message will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SHIFT/OFFSET >>					OFF LINE				
SHIFT S1=-100.000 S2=-100.000 S3=-100.000 S4=-100.000 S5=-100.000 S6=-100.000 S7=-100.000 S8=-100.000 S9=-100.000 OFFSET O1=***** O2=*****					File Name TEST1.SFT				
SAVE START									
<<Key Input>>									
[S6] = -100.000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					CHG

6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

The display will return to the MENU Screen when saving is completed.



6.2 SHIFT AND OFFSET OPERATIONS (OFFLINE)

■ f10 (CHG) Switching between shift and offset input

1. Press the f10 (CHG) Key.

The cursor in the SHIFT area will move to the OFFSET area.

<< SHIFT/OFFSET >>										OFF LINE		
SHIFT		S1=100,000	S2=100,000	S3=100,000	S4=100,000	S5=100,000	S6=100,000	S7=100,000	S8=100,000	File Name TEST1.SFT		
OFFSET		O8=*****	O9=*****									
<<Key Input>>												
S 1 =		-100,000										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10			
SEA		LOAD	SAVE	EXIT					CHG			

2. Press the f10 (CHG) Key again.

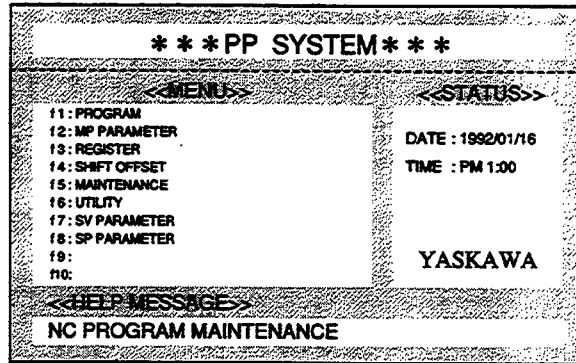
The cursor in the OFFSET area will move to the SHIFT area.

<< SHIFT/OFFSET >>										OFF LINE		
SHIFT		S1=100,000	S2=100,000	S3=100,000	S4=100,000	S5=100,000	S6=100,000	S7=100,000	S8=100,000	File Name TEST1.SFT		
OFFSET		O8=*****	O9=*****									
<<Key Input>>												
O 8 =		*****										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10			
SEA		LOAD	SAVE	EXIT					CHG			

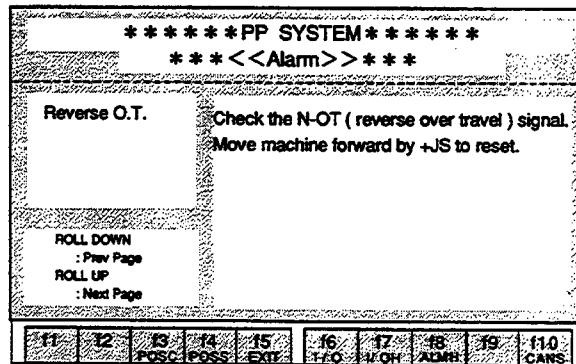
7 MAINTENANCE OPERATIONS

7.1 BASIC OPERATIONS

Select "MAINTENANCE" from the MENU Screen and press the f5 Key.
The Maintenance Editing Screen will be displayed.



First, the Alarm Display Screen will be displayed.



7.2 EXPLANATION OF THE FUNCTION KEYS

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
	ALM	POSC	POSS	EXIT	I/O	I/OH	ALMH	STY	CANS

- f1 :
- f2 ALM : Alarm display
- f3 POSC : Current position display
- f4 POSS : Selected position display
- f5 EXIT : Exiting
- f6 I/O : I/O display
- f7 I/OH : Input signal history display
- f8 ALMH : Alarm history display
- f9 STY : Status display
- f10 CHG : Send cancel code to MP

7.3 DETAILS OF THE FUNCTION KEYS

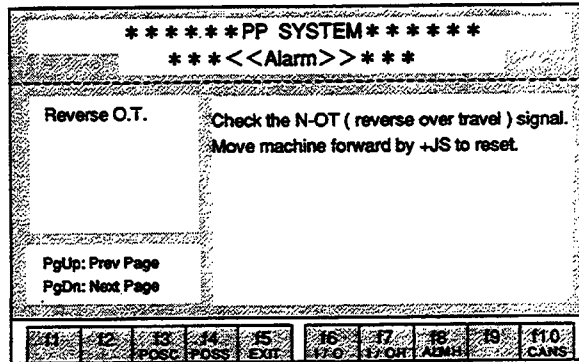
■ f2 (ALM) Alarm display

The alarm messages and countermeasures are displayed in real time.

Press the f2 (ALM) Key.

The alarm messages and countermeasures will be displayed in real time.

For details of the alarm messages, refer to the Appendix.



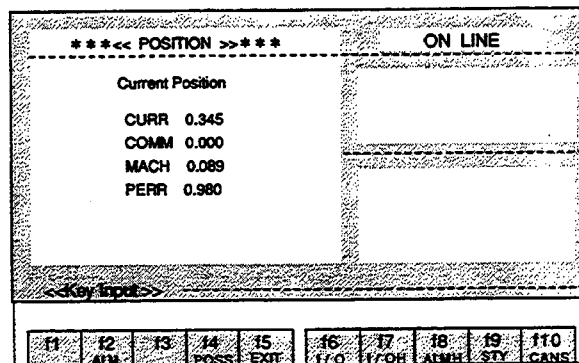
■ f3 (POSC) Current position display

Press the f3 (POSC) Key.

The current positions will be displayed in the Text Screen.

<Explanation of the contents displayed>

- CURR : Output position
- COMM : Aimed position
- MACH : Motor position
- PERR : Deviation



7.3 DETAILS OF THE FUNCTION KEYS

■ f4 (POSS) Selected position display

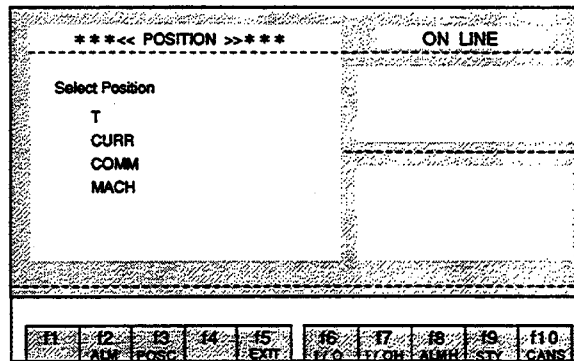
1. Press the f4 (POSS) Key.

The selected positions will be displayed in the Text Screen.

(No position data will be displayed immediately after startup.)

<Explanation of the contents displayed>

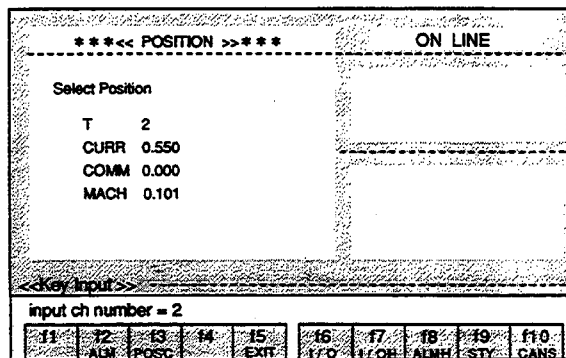
- POSS : Selected coordinate position
- T : Coordinate axis No.
- CURR : Output position
- COMM : Aimed position
- MACH : Motor position



2. Enter a 1-digit numerals (0 to 9) and press the Enter Key.

The position data of the designated axis No. will be displayed.

3. Enter "2" and press the Enter Key.



7.3 DETAILS OF THE FUNCTION KEYS

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

<< POSITION >>					ON LINE				
Select Position									
T . 1									
CURR 0.345									
COMM 0.000									
MACH 0.089									
EXIT OK?(Y/N)									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
ALM	POS	POS	EXIT		L/O	OR	ALM	STY	CANS

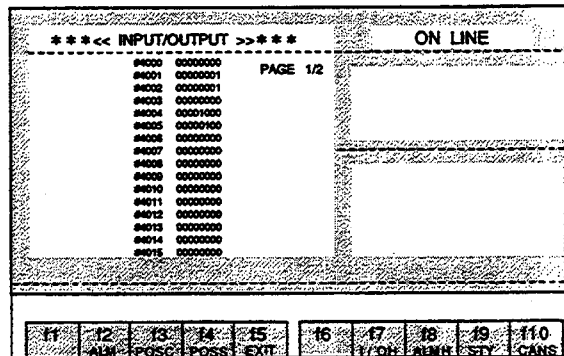
2. When "Y" editing will be completed and the display will return to the MENU Screen.
When a character other than "Y" is entered, editing will be continued.

PP SYSTEM	
<<MENU>>	<<STATUS>>
11: MP PROGRAM	DATE : 1992/01/16
12: MP PARAMETER	TIME : PM 1:00
13: REGISTER	
14: SHIFT OFFSET	
15: MAINTENANCE	
16: UTILITY	
17: SV PARAMETER	
18: SP PARAMETER	
19:	
10:	YASKAWA
<<HELP MESSAGE>>	
NC PROGRAM MAINTENANCE	

■ f6 (I/O) I/O display

Press the f6 (I/O) Key.

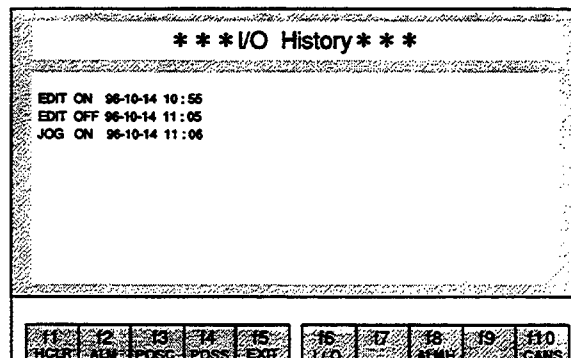
For details of the contents of the addresses, refer to the MOTIONPACK-SG1 User's Manual (manual No. SIE-C884-1).



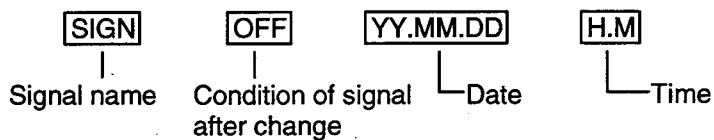
■ f7 (I/OH) Input signal history display

Press the f7 (I/OH) key.

The input signal change history will be displayed.



< Explanation of the contents displayed >



Signal names are stored up to the last 100 cases of change. Older changes are deleted in the order of occurrence and the newer cases of change are retained.

For details of the signal names, refer to the MOTIONPACK-SG1 User's Manual.

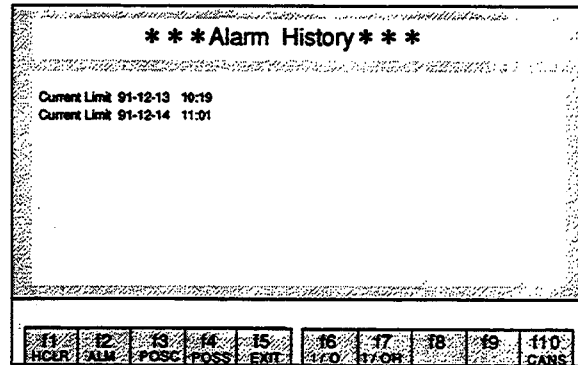
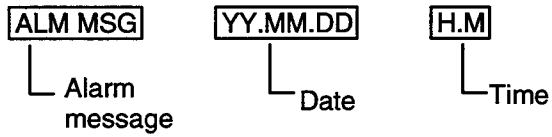
7.3 DETAILS OF THE FUNCTION KEYS

■ f8 (ALMH) Alarm history display

Press the f8 (ALMH) key.

The alarm message history will be displayed.

< Explanation of the contents displayed >

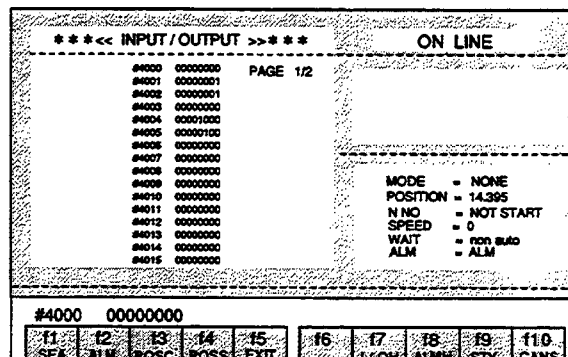


The last 100 alarms are stored. Older alarms are deleted in the order of occurrence and newer alarms are retained.

■ f9 (STY) Status display

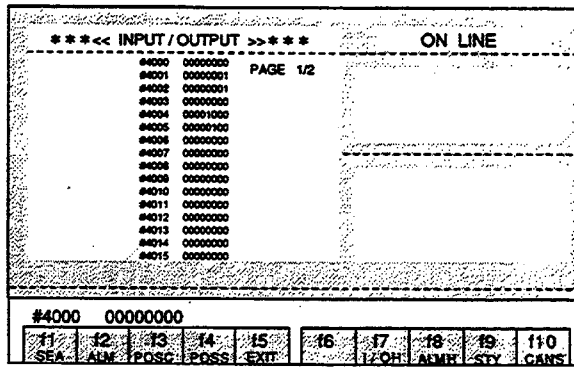
1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.



7.3 DETAILS OF THE FUNCTION KEYS

2. Press the f9 (STY) Key again.
The status display will disappear.

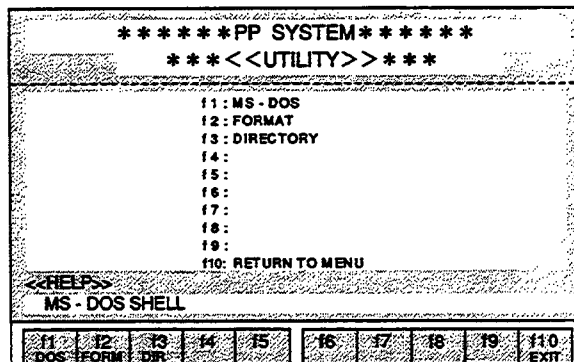
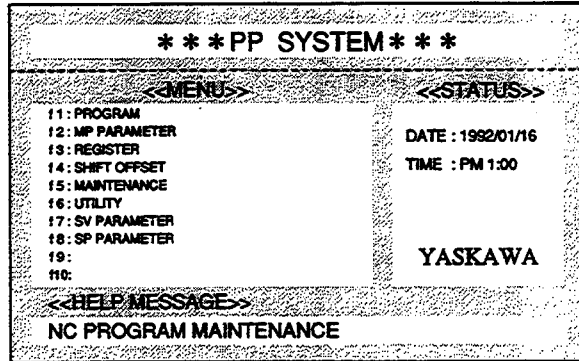


The status display can also be displayed at the respective screens of f3 (POSC), f4 (POSS), and f6 (I/O).

8 UTILITY OPERATIONS

8.1 BASIC OPERATIONS

Select "UTILITY" from the MENU Screen and press the f6 Key.
 The Utility Editing Screen will be displayed.



8.2 EXPLANATION OF THE FUNCTION KEYS

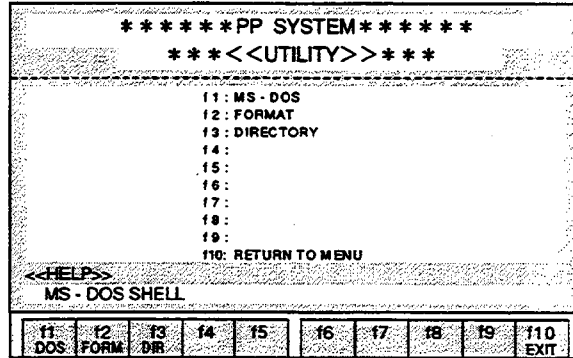
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
DOS	FORM	DIR							EXIT

- f1 DOS : MS-DOS shell
- f2 FORM : Formatting of floppy disk
- f3 DIR : File list display
- f4 :
- f5 :
- f6 :
- f7 :
- f8 :
- f9 :
- f10 EXIT : Exiting

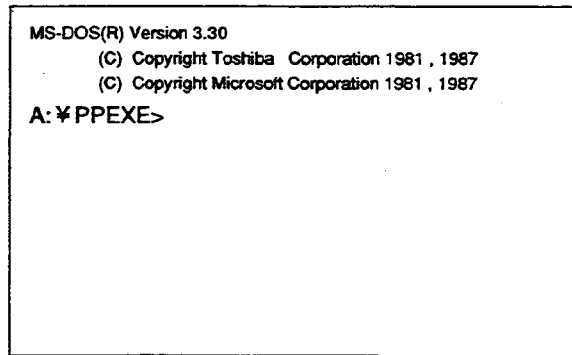
8.3 DETAILS OF THE FUNCTION KEYS

■ f1 (DOS) MS-DOS shell

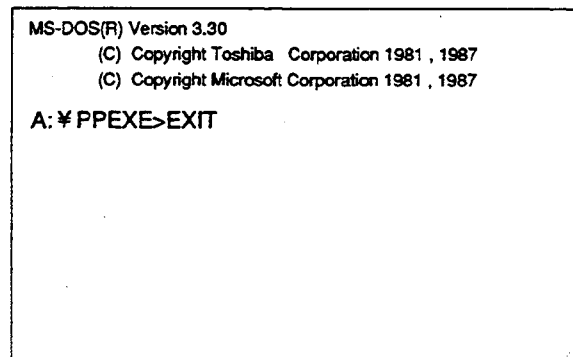
1. Press the f1 (DOS) Key.



The MS-DOS command will be executed.



2. To exit the MS-DOS shell, enter "EXIT" and press the Enter Key.



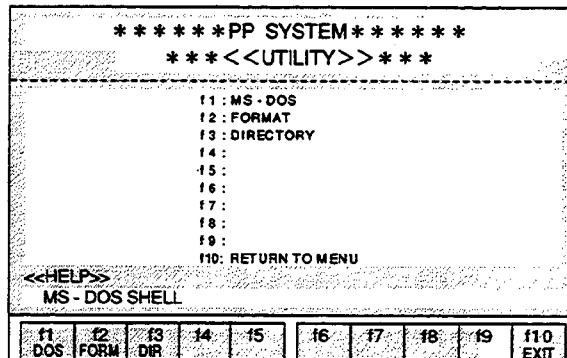
Notes:

1. If the current directory has been changed, be sure to return to the original directory before ending.
2. Do not restart PP as a sub-process. This can destroy the memory.

8.3 DETAILS OF THE FUNCTION KEYS

■ f2 (FORM) Formatting of floppy disk

1. Press the f2 (FORM) Key.
2. Insert a floppy disk in the disk device and perform operations in accordance with the instructions on the screen.

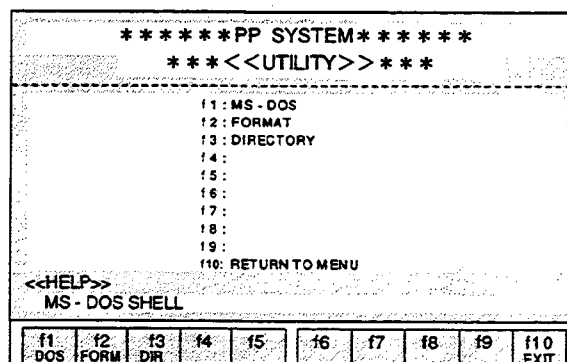


Notes:

1. This function is enabled only with PC-9801 and J3100. Formatting may not be performed properly if the above is executed with any other type of personal computer. With a personal computer other than PC-9801 or J3100, use the DOS command to perform formatting from the MS-DOS menu (f1 (DOS) Key).
2. If the "Bad command or file name" message is displayed when the above function is used, the MS-DOS external command FORMAT.EXE file must be installed and the path must be designated.

■ f3 (DIR) File list display

Press the f3 (DIR) Key.
The list of files will be displayed.

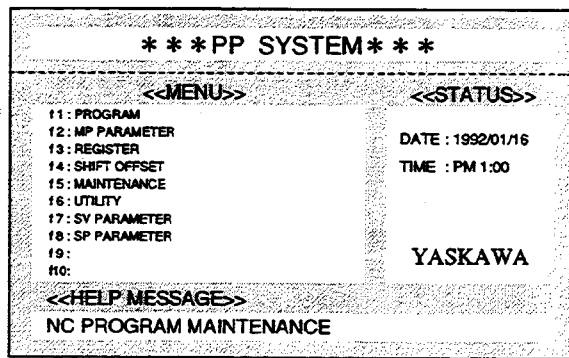
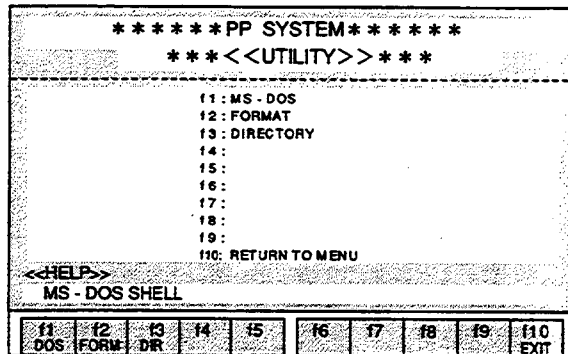


8.3 DETAILS OF THE FUNCTION KEYS

■ f10 (EXIT) Exiting

Press the f10 (EXIT) Key.

The display will return to the MENU Screen.



9 Servo Parameter Operations

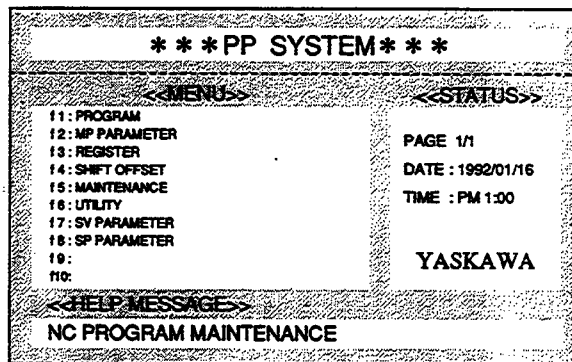
The changing, uploading, and downloading of the servo parameters are performed as explained below. All of the parameter Nos. and data are expressed in hexadecimal format.

9.1 SERVO PARAMETER OPERATIONS (ONLINE)

When a changing operation is performed in the online mode, the contents of the MOTIONPACK parameters will be changed immediately. Thus the contents of the MOTIONPACK parameters and the contents of the parameters in the editing screen will be matched.

9.1.1 Basic Operations

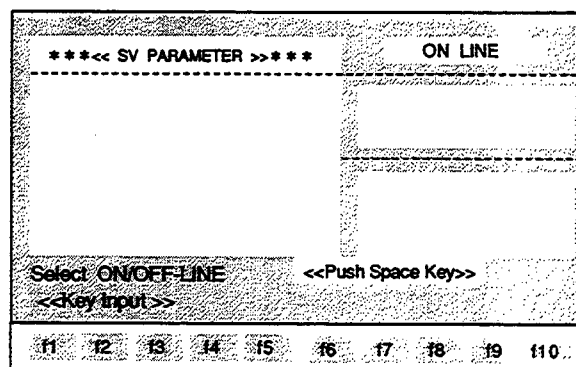
1. Select "SV PARAMETER" from the MENU Screen and press the f7 Key.
The Servo Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.

<SERVO PARAMETER EDITING SCREEN>



9.1 SERVO PARAMETER OPERATIONS (ONLINE)

The contents of the parameters set in MOTIONPACK will be displayed.
The parameters in the next page can be monitored by pressing the ROLL UP Key.

<< SV PARAMETER >>					ON LINE				
0000=	1000000000000000								
0001=	1000000000000000								
0002=	1000000000000000								
0003=	1000000000000000								
0004=	1000000000000000								
0005=	1000000000000000								
0006=	1000000000000000								
0007=	1000000000000000								
0008=	1000000000000000								
0009=	1000000000000000								
000A=	1000000000000000								
000B=	1000000000000000								
000C=	1000000000000000								
000D=	1000000000000000								
000E=	1000000000000000								
000F=	1000000000000000								
<<Key input>>									
0000=	1000000000000000								
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXT	FDDP	FDDN	YERF	STY	

9.1 SERVO PARAMETER OPERATIONS (ONLINE)

9.1.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

f1 SEA : Search for character string

f2 :

f3 :

f4 :

f5 EXIT : Exiting

f6 FDUP : Upload

f7 FDDN : Download

f8 VERF : Verify

f9 STY : Status display

f10 :

9.1 SERVO PARAMETER OPERATIONS (ONLINE)

9.1.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for from the current cursor position.

1. Enter "0006" at the Input Line.

<< SV PARAMETER >>					ON LINE				
0000=	1000000000000000								
0001=	1000000000000000								
0002=	1000000000000000								
0003=	1000000000000000								
0004=	1000000000000000								
0005=	1000000000000000								
0006=	1000000000000000								
0007=	1000000000000000								
0008=	1000000000000000								
0009=	1000000000000000								
000A=	1000000000000000								
000B=	1000000000000000								
000C=	1000000000000000								
000D=	1000000000000000								
000E=	1000000000000000								
000F=	1000000000000000								
<<Key Input>>									
0000= 1000000000000000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXT	FDUP	FDDN	VERE	STY	

2. Press the f1 (SEA) Key.

The cursor will move to 0006 line.

<< SV PARAMETER >>					ON LINE				
0000=	1000000000000000								
0001=	1000000000000000								
0002=	1000000000000000								
0003=	1000000000000000								
0004=	1000000000000000								
0005=	1000000000000000								
0006=	1000000000000000								
0007=	1000000000000000								
0008=	1000000000000000								
0009=	1000000000000000								
000A=	1000000000000000								
000B=	1000000000000000								
000C=	1000000000000000								
000D=	1000000000000000								
000E=	1000000000000000								
000F=	1000000000000000								
<<Key Input>>									
0006= 1000000000000000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXT	FDUP	FDDN	VERE	STY	

9.1 SERVO PARAMETER OPERATIONS (ONLINE)

<Servo Parameter Changing Method >

To rewrite to "0006 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.

<< SV PARAMETER >> ON LINE

000-	1000000000000000
0001-	1000000000000000
0002-	1000000000000000
0003-	1000000000000000
0004-	1000000000000000
0005-	1000000000000000
0006-	1000000000000000
0007-	1000000000000000
0008-	1000000000000000
0009-	1000000000000000
000A-	1000000000000000
000B-	1000000000000000
000C-	1000000000000000
000D-	1000000000000000
000E-	1000000000000000
000F-	1000000000000000

<<Key input>>

0006 =

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

2. Enter "5000" and press the Enter Key.

<< SV PARAMETER >> ON LINE

000-	1000000000000000
0001-	1000000000000000
0002-	1000000000000000
0003-	1000000000000000
0004-	1000000000000000
0005-	1000000000000000
0006-	1000000000000000
0007-	1000000000000000
0008-	1000000000000000
0009-	1000000000000000
000A-	1000000000000000
000B-	1000000000000000
000C-	1000000000000000
000D-	1000000000000000
000E-	1000000000000000
000F-	1000000000000000

<<Key input>>

0006 =

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

The parameter will be changed.

<< SV PARAMETER >> ON LINE

000-	1000000000000000
0001-	1000000000000000
0002-	1000000000000000
0003-	1000000000000000
0004-	1000000000000000
0005-	1000000000000000
0006-	5000
0007-	1000000000000000
0008-	1000000000000000
0009-	1000000000000000
000A-	1000000000000000
000B-	1000000000000000
000C-	1000000000000000
000D-	1000000000000000
000E-	1000000000000000
000F-	1000000000000000

<<Key input>>

0006 =

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

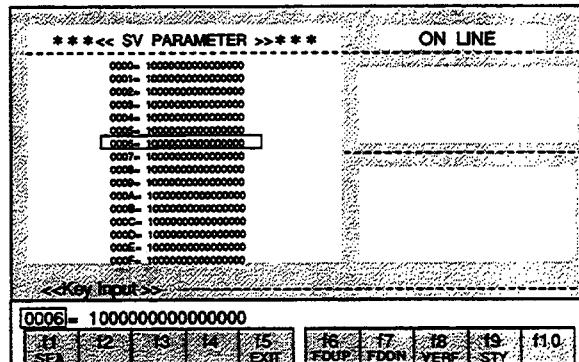
If a change to "0006 = 10000" was made by mistake when the change to "0007 = 10000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

9.1 SERVO PARAMETER OPERATIONS (ONLINE)

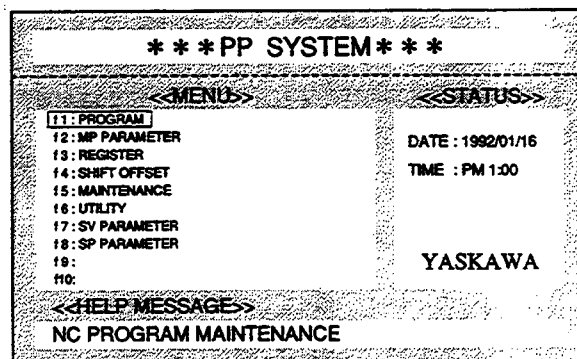
■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.



2. When "Y" is entered, editing will be completed and the display will return to the MENU Screen. When a character other than "Y" is entered, editing will be continued.



9.1 SERVO PARAMETER OPERATIONS (ONLINE)

■ f6 (FDUP) Upload

Servo parameters are read in from MOTIONPACK.

1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.

<< SV PARAMETER >>					ON LINE				
File Name Input									
<<Key Input>>									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

2. Enter the file name and press the Enter Key.

Uploading will begin.

<< SV PARAMETER >>					ON LINE				
<<Key Input>>									
TEST									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STY	

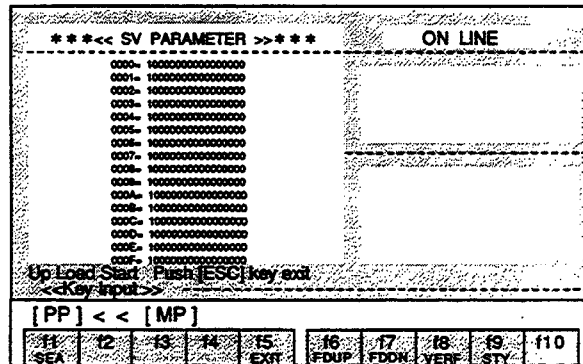
9.1 SERVO PARAMETER OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

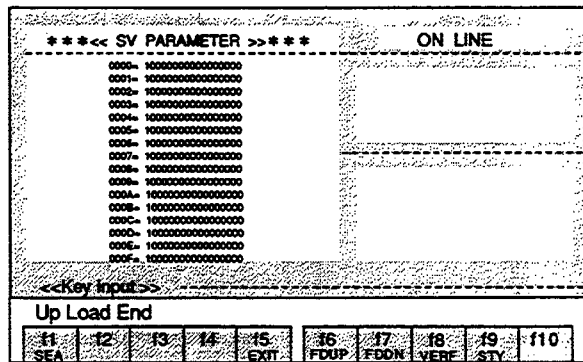
At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.



3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line.



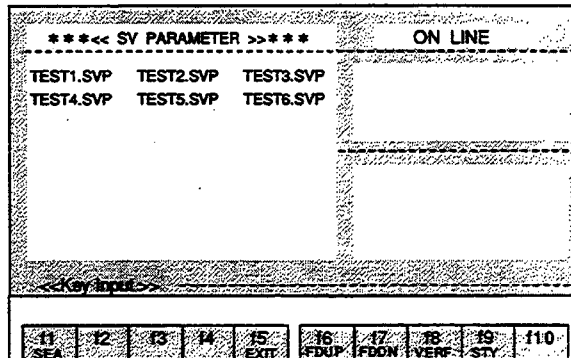
9.1 SERVO PARAMETER OPERATIONS (ONLINE)

■ f7 (FDDN) Download

Servo parameters are written into MOTIONPACK.

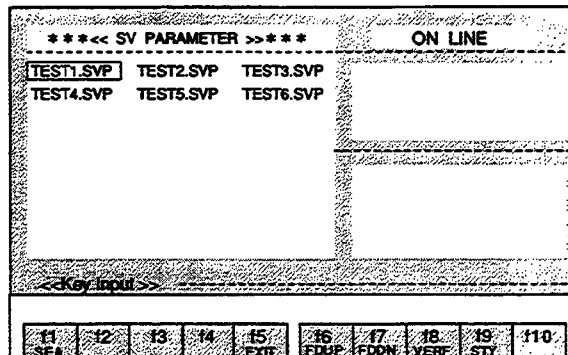
1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.



2. Select the file name using the Cursor Keys and press the Enter Key.

Downloading will be started.



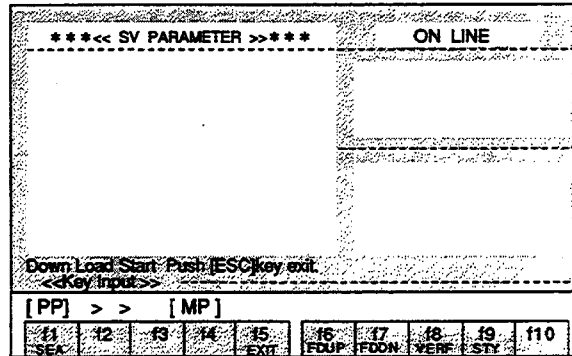
9.1 SERVO PARAMETER OPERATIONS (ONLINE)

During downloading, the following messages are displayed:

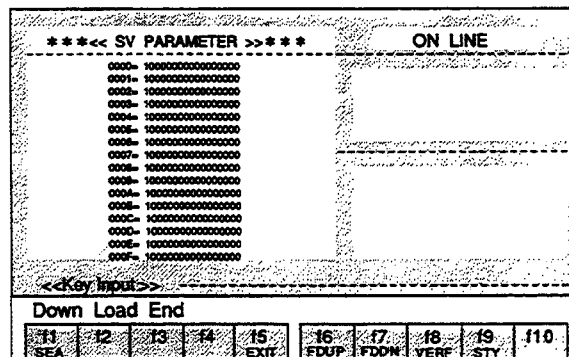
At the Status Line, "Down Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.



3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line.

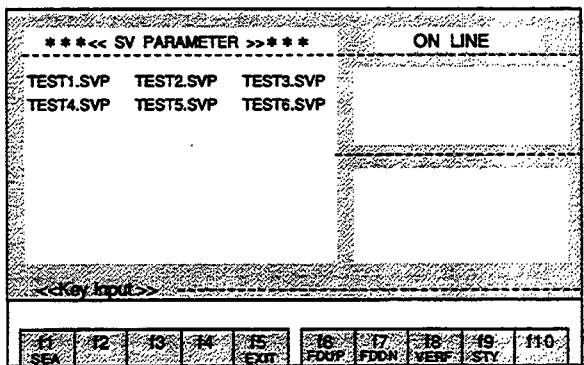


■ f8 (VERF) Verify

The contents of the MOTIONPACK parameters are verified with the contents of the parameters of the designated file.

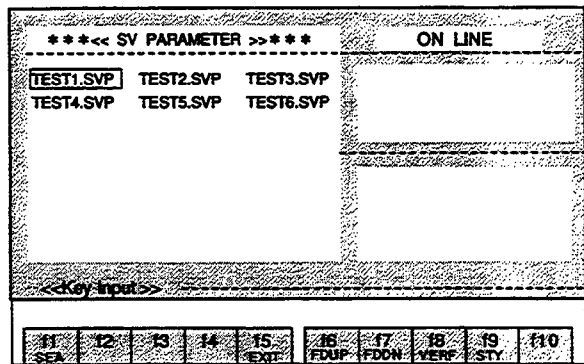
1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.



2. Select the file name using the Cursor Keys and press the Enter Key.

The MOTIONPACK parameters are verified with the parameters in the selected file.



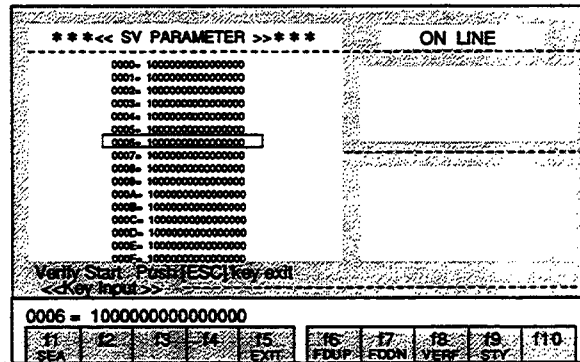
9.1 SERVO PARAMETER OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:
 In the Text Screen, the contents of the MOTIONPACK parameters will be displayed.
 At the Input Line, the contents of the parameters in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification.
 The "Verify End" message will be displayed after completing verification.

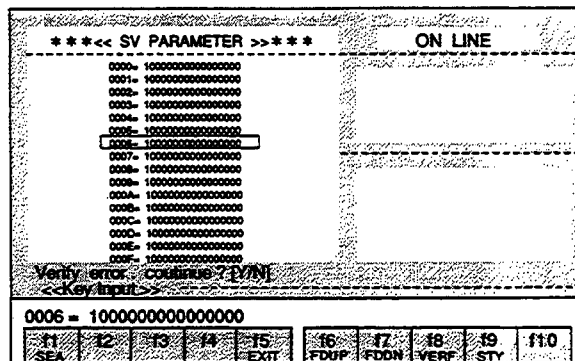
Verification will be interrupted when the ESC Key is pressed during verification.



3. If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.



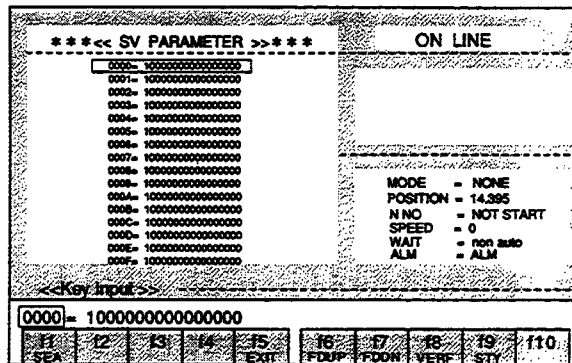
9.1 SERVO PARAMETER OPERATIONS (ONLINE)

■ f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

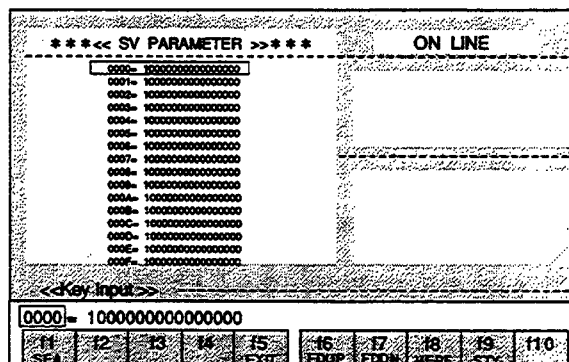
1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.



2. Press the f9 (STY) Key again.

The status display will disappear.

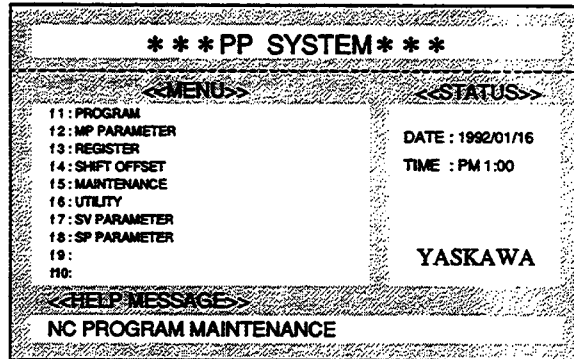


9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

The changing, uploading, and downloading of the servo parameters are performed as explained below. File editing is performed in the offline mode. The edited contents will become lost if editing is terminated without performing the save operation.

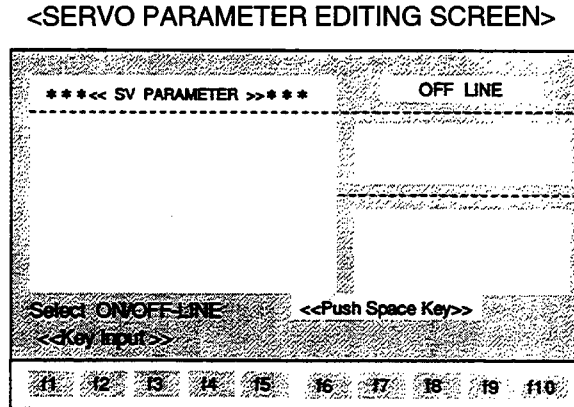
9.2.1 Basic Operations

1. Select "SV PARAMETER" from the MENU Screen and press the f7 Key. The Servo Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.



9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

- The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< SV PARAMETER >>										OFF LINE
TEST1.SVP	TEST2.SVP	TEST3.SVP								
TEST4.SVP	TEST5.SVP	TEST6.SVP								
Select File Name										
<<Key Input>>										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	

The contents of the parameters in the designated file will be displayed.
The parameters in the next page can be monitored by pressing the ROLL UP Key.

<< SV PARAMETER >>										OFF LINE
0001= 1000000000000000										File Name
0002= 1000000000000000										TEST1.SVP
0003= 1000000000000000										
0004= 1000000000000000										
0005= 1000000000000000										
0006= 1000000000000000										
0007= 1000000000000000										
0008= 1000000000000000										
0009= 1000000000000000										
000A= 1000000000000000										
000B= 1000000000000000										
000C= 1000000000000000										
000D= 1000000000000000										
000E= 1000000000000000										
000F= 1000000000000000										
<<Key Input>>										
0000= 1000000000000000										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	
SEA		LOAD	SAVE	EXIT						

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

9.2.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

f1 SEA : Search for character string

f2 :

f3 LOAD : Loading of file

f4 SAVE : Save in file

f5 EXIT : Exiting

f6 :

f7 :

f8 :

f9 :

f10 :

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

9.2.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for from the current cursor position.

1. Enter "0006" at the Input Line.

<< SV PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SVP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
0000	=	1000000000000000							
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

2. Press the f1 (SEA) Key.

The cursor will move to 0006 line.

<< SV PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SVP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
0006	=	1000000000000000							
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

< Servo Parameter Changing Method >

To rewrite to "0006 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.

<< SV PARAMETER >> OFF LINE

File Name
TEST1.SVP

0001= 1000000000000000
0002= 1000000000000000
0003= 1000000000000000
0004= 1000000000000000
0005= 1000000000000000
0006= 1000000000000000
0007= 1000000000000000
0008= 1000000000000000
0009= 1000000000000000
000A= 1000000000000000
000B= 1000000000000000
000C= 1000000000000000
000D= 1000000000000000
000E= 1000000000000000
000F= 1000000000000000

<<Key Input>>

0006 =

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

2. Enter "5000" and press the Enter Key.

<< SV PARAMETER >> OFF LINE

File Name
TEST1.SVP

0000= 1000000000000000
0001= 1000000000000000
0002= 1000000000000000
0003= 1000000000000000
0004= 1000000000000000
0005= 1000000000000000
0006= 5000
0007= 1000000000000000
0008= 1000000000000000
0009= 1000000000000000
000A= 1000000000000000
000B= 1000000000000000
000C= 1000000000000000
000D= 1000000000000000
000E= 1000000000000000
000F= 1000000000000000

<<Key Input>>

0006 = 5000

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

The parameter will be changed.

<< SV PARAMETER >> OFF LINE

File Name
TEST1.SVP

0006= 5000
0007= 1000000000000000
0008= 1000000000000000
0009= 1000000000000000
000A= 1000000000000000
000B= 1000000000000000
000C= 1000000000000000
000D= 1000000000000000
000E= 1000000000000000
000F= 1000000000000000

<<Key Input>>

0006 = 5000

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

If a change to "0006 = 10000" was made by mistake when the change to "0007 = 10000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see f4 (SAVE)).

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

■ f3 (LOAD) Loading of file

The data of the designated file are transferred to the RAM of the personal computer.

1. Press the f3 (LOAD) Key.

<< SV PARAMETER >>					OFF LINE					
0000-	1000000000000000				File Name	TEST1.SVP				
0001-	1000000000000000									
0002-	1000000000000000									
0003-	1000000000000000									
0004-	1000000000000000									
0005-	1000000000000000									
0006-	1000000000000000									
0007-	1000000000000000									
0008-	1000000000000000									
0009-	1000000000000000									
000A-	1000000000000000									
000B-	1000000000000000									
000C-	1000000000000000									
000D-	1000000000000000									
000E-	1000000000000000									
000F-	1000000000000000									
<<Key Input>>										
0000-	1000000000000000				f6	f7	f8	f9	f10	
f1	f2	f3	f4	f5						
SEA		LOAD	SAVE	EXIT						

2. The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< SV PARAMETER >>					OFF LINE					
TEST1.SVP	TEST2.SVP	TEST3.SVP								
TEST4.SVP	TEST5.SVP	TEST6.SVP								
Select File Name										
<<Key Input>>										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	

The contents of the selected file will be displayed in the Text Screen.

<< SV PARAMETER >>					OFF LINE					
0000-	2000000000000000				File Name	TEST2.SVP				
0001-	2000000000000000									
0002-	2000000000000000									
0003-	2000000000000000									
0004-	2000000000000000									
0005-	2000000000000000									
0006-	2000000000000000									
0007-	2000000000000000									
0008-	2000000000000000									
0009-	2000000000000000									
000A-	2000000000000000									
000B-	2000000000000000									
000C-	2000000000000000									
000D-	2000000000000000									
000E-	2000000000000000									
000F-	2000000000000000									
<<Key Input>>										
0000-	2000000000000000				f6	f7	f8	f9	f10	
f1	f2	f3	f4	f5						
SEA		LOAD	SAVE	EXIT						

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

■ f4 (SAVE) Save in file

The data in the RAM of the personal computer are saved in a file.

1. Press the f4 (SAVE) Key.
2. If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.

<< SV PARAMETER >>					OFF LINE				
0000- 1000000000000000					File Name				
0001- 1000000000000000					TEST1.SVP				
0002- 1000000000000000									
0003- 1000000000000000									
0004- 1000000000000000									
0005- 1000000000000000									
0006- 1000000000000000									
0007- 1000000000000000									
0008- 1000000000000000									
0009- 1000000000000000									
000A- 1000000000000000									
000B- 1000000000000000									
000C- 1000000000000000									
000D- 1000000000000000									
000E- 1000000000000000									
000F- 1000000000000000									
<<Key input>>									
File Name = TEST1_									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

If the data are to be saved in a new file, enter the file name and then press the Enter Key.

<< SV PARAMETER >>					OFF LINE				
0000- 1000000000000000					File Name				
0001- 1000000000000000					TEST1.SVP				
0002- 1000000000000000									
0003- 1000000000000000									
0004- 1000000000000000									
0005- 1000000000000000									
0006- 1000000000000000									
0007- 1000000000000000									
0008- 1000000000000000									
0009- 1000000000000000									
000A- 1000000000000000									
000B- 1000000000000000									
000C- 1000000000000000									
000D- 1000000000000000									
000E- 1000000000000000									
000F- 1000000000000000									
<<Key input>>									
File Name = TEST2_									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SV PARAMETER >>					OFF LINE				
0000=	1000000000000000								
0001=	1000000000000000								
0002=	1000000000000000								
0003=	1000000000000000								
0004=	1000000000000000								
0005=	1000000000000000								
0006=	1000000000000000								
0007=	1000000000000000								
0008=	1000000000000000								
0009=	1000000000000000								
000A=	1000000000000000								
000B=	1000000000000000								
000C=	1000000000000000								
000D=	1000000000000000								
000E=	1000000000000000								
000F=	1000000000000000								
SAVE START <<Key input>>					File Name TEST1.SVP				
File Name = TEST1									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXT					

Note: The edited contents will become lost if editing is terminated without performing the save operation.

<< SV PARAMETER >>					OFF LINE				
0000=	1000000000000000								
0001=	1000000000000000								
0002=	1000000000000000								
0003=	1000000000000000								
0004=	1000000000000000								
0005=	1000000000000000								
0006=	1000000000000000								
0007=	1000000000000000								
0008=	1000000000000000								
000A=	1000000000000000								
000B=	1000000000000000								
000C=	1000000000000000								
000D=	1000000000000000								
000E=	1000000000000000								
000F=	1000000000000000								
SAVE END <<Key input>>					File Name TEST1.SVP				
0000= 1000000000000000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXT					

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

2. Enter "Y".

When a character other than "Y" is entered, editing will be continued.

<< SV PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SVP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
<<Key Input>>									
0000-	1000000000000000								
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					

3. The "SAVE OK? (Y/N)" message will be displayed at the Status Line.

Enter "Y".

When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.

<< SV PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SVP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110
SEA		LOAD	SAVE	EXIT					

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

4. If the edited contents are to be saved in the file that is displayed at the Input Line, just press the Enter Key.

<< SV PARAMETER >>					OFF LINE						
000-	1000000000000000	0001-	1000000000000000	0002-	1000000000000000	0003-	1000000000000000	0004-	1000000000000000	File Name	TEST1.SVP
0005-	1000000000000000	0006-	1000000000000000	0007-	1000000000000000	0008-	1000000000000000	0009-	1000000000000000	000A-	1000000000000000
000B-	1000000000000000	000C-	1000000000000000	000D-	1000000000000000	000E-	1000000000000000	000F-	1000000000000000		
<<Key Input>>											
File Name = TEST1											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT							

If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.

<< SV PARAMETER >>					OFF LINE						
000-	1000000000000000	0001-	1000000000000000	0002-	1000000000000000	0003-	1000000000000000	0004-	1000000000000000	File Name	TEST1.SVP
0005-	1000000000000000	0006-	1000000000000000	0007-	1000000000000000	0008-	1000000000000000	0009-	1000000000000000	000A-	1000000000000000
000B-	1000000000000000	000C-	1000000000000000	000D-	1000000000000000	000E-	1000000000000000	000F-	1000000000000000		
<<Key Input>>											
File Name = TEST2											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT							

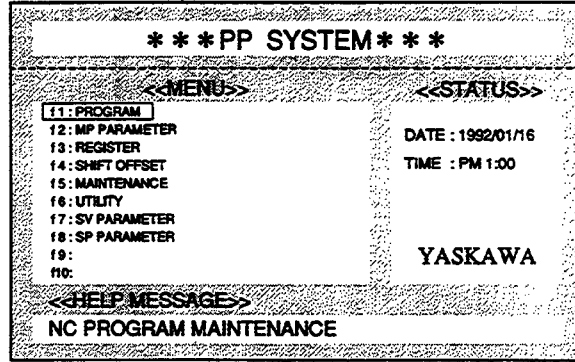
The "SAVE START" message will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SV PARAMETER >>					OFF LINE						
000-	1000000000000000	0001-	1000000000000000	0002-	1000000000000000	0003-	1000000000000000	0004-	1000000000000000	File Name	TEST1.SVP
0005-	1000000000000000	0006-	1000000000000000	0007-	1000000000000000	0008-	1000000000000000	0009-	1000000000000000	000A-	1000000000000000
000B-	1000000000000000	000C-	1000000000000000	000D-	1000000000000000	000E-	1000000000000000	000F-	1000000000000000		
SAVE START											
<<Key Input>>											
File Name = TEST1											
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
SEA		LOAD	SAVE	EXIT							

9.2 SERVO PARAMETER OPERATIONS (OFFLINE)

The display will return to the MENU Screen when saving is completed.



10 SPINDLE PARAMETER OPERATIONS

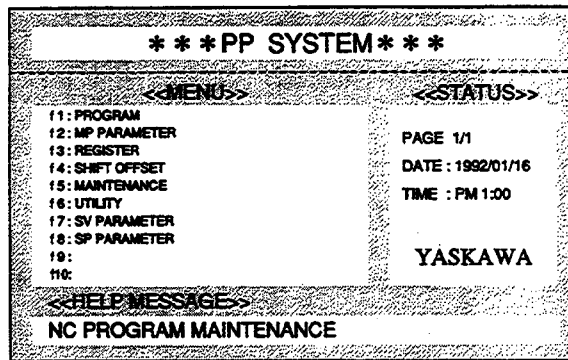
The changing, uploading, and downloading of the spindle parameters are performed as explained below. All of the parameter Nos. and data are expressed in hexadecimal format.

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

When a changing operation is performed in the online mode, the contents of the MOTIONPACK parameters will be changed immediately. Thus the contents of the MOTIONPACK parameters and the contents of the parameters in the editing screen will be matched.

10.1.1 Basic Operations

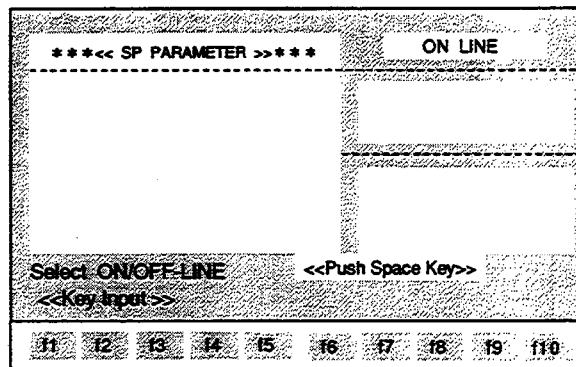
1. Select "SP PARAMETER" from the MENU Screen and press the f8 Key.
The Spindle Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

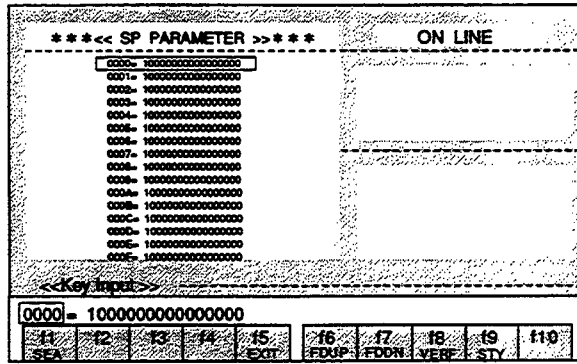
When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when ONLINE is indicated, ONLINE will be selected.

<SPINDLE PARAMETER EDITING SCREEN>



10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

The contents of the parameters set in MOTIONPACK will be displayed.
The parameters in the next page can be monitored by pressing the ROLL UP Key.



10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

10.1.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

f1 SEA : Search for character string

f2 :

f3 :

f4 :

f5 EXIT : Exiting

f6 FDUP : Upload

f7 FDDN : Download

f8 VERF : Verify

f9 STY : Status display

f10 :

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

10.1.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for, starting from the current cursor position.

1. Enter "0006" at the Input Line.

<< SP PARAMETER >>					ON LINE				
0000	1000000000000000								
0001	1000000000000000								
0002	1000000000000000								
0003	1000000000000000								
0004	1000000000000000								
0005	1000000000000000								
0006	1000000000000000								
0007	1000000000000000								
0008	1000000000000000								
0009	1000000000000000								
000A	1000000000000000								
000B	1000000000000000								
000C	1000000000000000								
000D	1000000000000000								
000E	1000000000000000								
000F	1000000000000000								
<<Key Input>>									
0000	1000000000000000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STD	

2. Press the f1 (SEA) Key.

The cursor will move to 0006 line.

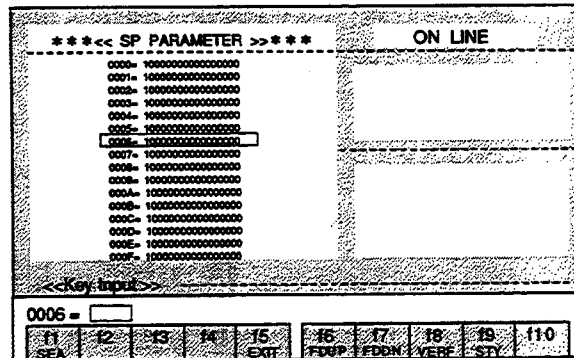
<< SP PARAMETER >>					ON LINE				
0000	1000000000000000								
0001	1000000000000000								
0002	1000000000000000								
0003	1000000000000000								
0004	1000000000000000								
0005	1000000000000000								
0006	1000000000000000								
0007	1000000000000000								
0008	1000000000000000								
0009	1000000000000000								
000A	1000000000000000								
000B	1000000000000000								
000C	1000000000000000								
000D	1000000000000000								
000E	1000000000000000								
000F	1000000000000000								
<<Key Input>>									
0006	1000000000000000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDUP	FDDN	VERF	STD	

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

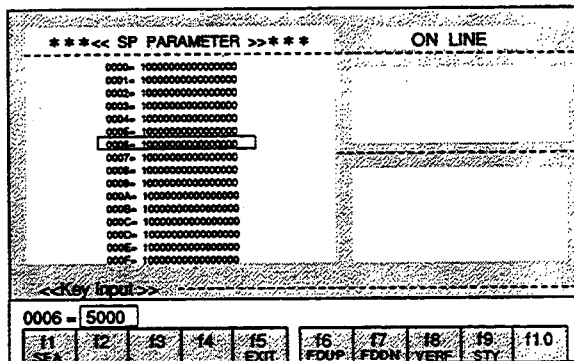
<Spindle Parameter Changing Method >

To rewrite to "0006 = 5000".

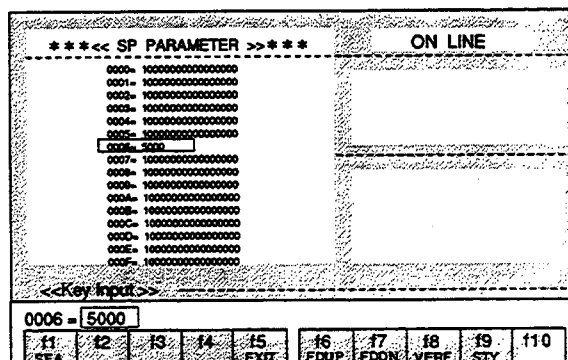
1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.



2. Enter "5000" and press the Enter Key.



The parameter will be changed.



If a change to "0006 = 10000" was made by mistake when the change to "0007 = 10000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

<< SP PARAMETER >>					ON LINE				
0000-	1000000000000000								
0001-	1000000000000000								
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
0006- 1000000000000000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA				EXIT	FDDP	FDDN	VERE	STY	

2. When "Y" is entered, editing will be completed and the display will return to the MENU Screen. When a character other than "Y" is entered, editing will continue.

*** PP SYSTEM ***	
<<MENU>>	<<STATUS>>
11: PROGRAM	DATE : 1992/01/16
12: MP PARAMETER	TIME : PM 1:00
13: REGISTER	
14: SHIFT OFFSET	
15: MAINTENANCE	
16: UTILITY	
17: SV PARAMETER	
18: SP PARAMETER	
19:	
110:	YASKAWA
<<HELP MESSAGE>>	
NC PROGRAM MAINTENANCE	

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

■ f6 (FDUP) Upload

Spindle parameters are read in from MOTIONPACK.

1. Press the f6 (FDUP) Key.

The "File Name Input" message will be displayed at the Status Line.

<< SP PARAMETER >>					ON LINE				
File Name Input									
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110
SEA				EXIT	FDUP	FDDN	VERF	STY	

2. Enter the file name and press the Enter Key.

Uploading will be started.

<< SP PARAMETER >>					ON LINE				
TEST									
<<Key Input>>									
11	12	13	14	15	16	17	18	19	110
SEA				EXIT	FDUP	FDDN	VERF	STY	

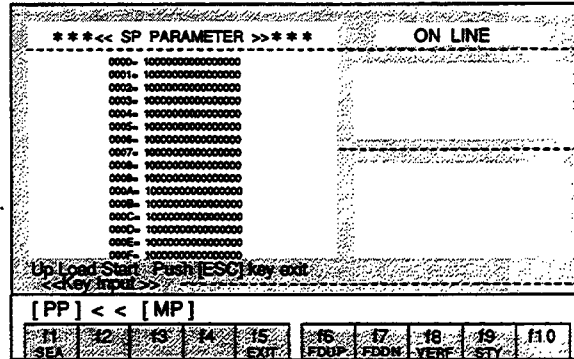
10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

During uploading, the following messages are displayed:

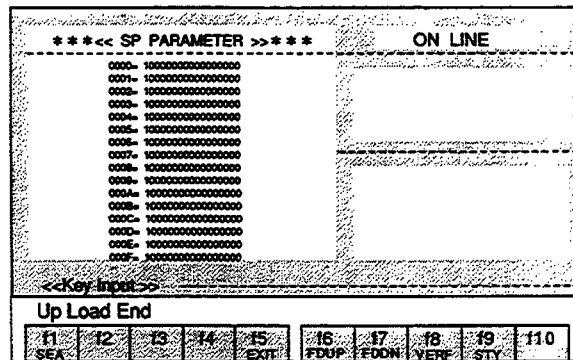
At the Status Line, "Up Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] << [MP]" will be displayed. This indicates that uploading is being performed in the direction of the arrow.

When the ESC Key is pressed during uploading, uploading will be interrupted.



3. After uploading is completed, the "Up Load End" message will be displayed at the Input Line.



10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

■ f7 (FDDN) Download

Spindle parameters are written into MOTIONPACK.

1. Press the f7 (FDDN) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< SP PARAMETER >>										ON LINE
TEST1.SPP	TEST2.SPP	TEST3.SPP								
TEST4.SPP	TEST5.SPP	TEST6.SPP								
<Key Input>										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	
SEA				EXIT	FDUP	FDDN	VERP	STY		

2. Select the file name using the Cursor Keys and press the Enter Key.

Downloading will be started.

<< SP PARAMETER >>										ON LINE
TEST1.SPP	TEST2.SPP	TEST3.SPP								
TEST4.SPP	TEST5.SPP	TEST6.SPP								
<Key Input>										
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	
SEA				EXIT	FDUP	FDDN	VERP	STY		

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

During downloading, the following messages are displayed:

At the Status Line, "Down Load Start Push [ESC] key exit" message will be displayed.

At the Input Line, "[PP] >> [MP]" will be displayed. This indicates that downloading is being performed in the direction of the arrow.

When the ESC Key is pressed during downloading, downloading will be interrupted.

<< SP PARAMETER >>										ON LINE				
Down Load Start Push [ESC] key exit.														
<<Key Input>>														
[PP] >> [MP]														
11	12	13	14	15	16	17	18	19	110					
SEA				EXIT	FDDP	FDDN	VERP	STY						

3. After downloading is completed, the "Down Load End" message will be displayed at the Input Line .

<< SP PARAMETER >>										ON LINE				
000- 1000000000000000 001- 1000000000000000 002- 1000000000000000 003- 1000000000000000 004- 1000000000000000 005- 1000000000000000 006- 1000000000000000 007- 1000000000000000 008- 1000000000000000 009- 1000000000000000 00A- 1000000000000000 00B- 1000000000000000 00C- 1000000000000000 00D- 1000000000000000 00E- 1000000000000000 00F- 1000000000000000														
<<Key Input>>														
Down Load End														
11	12	13	14	15	16	17	18	19	110					
SEA				EXIT	FDDP	FDDN	VERP	STY						

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

■ f8 (VERF) Verify

The contents of the MOTIONPACK parameters are verified with those of the designated file.

1. Press the f8 (VERF) Key.

The File Name Selection Menu will be displayed in the Text Screen.

<< SP PARAMETER >>					ON LINE				
TEST1.SPP	TEST2.SPP	TEST3.SPP							
TEST4.SPP	TEST5.SPP	TEST6.SPP							
<<Key input>>									
F11	F12	F13	F14	F15	F16	F17	F18	F19	F10
SEA				EXT	FDUP	FDON	VERF	STY	

2. Select the file name using the Cursor Keys and press the Enter Key.

The MOTIONPACK parameters are verified with the spindle parameters in the selected file.

<< SP PARAMETER >>					ON LINE				
TEST1.SPP	TEST2.SPP	TEST3.SPP							
TEST4.SPP	TEST5.SPP	TEST6.SPP							
<<Key input>>									
F11	F12	F13	F14	F15	F16	F17	F18	F19	F10
SEA				EXT	FDUP	FDON	VERF	STY	

10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

During verification, the following contents and messages are displayed:

In the Text Screen, the contents of the MOTIONPACK parameters will be displayed in the Text Screen.

At the Input Line, the contents of the parameters in the file will be displayed.

At the Status Line:

The "Verify Start Push [ESC] key exit" message will be displayed when starting verification.

The "Verify End" message will be displayed after completing verification.

Verification will be interrupted when the ESC Key is pressed during verification.

<< SP PARAMETER >>					ON LINE				
000-	1000000000000000								
0001-	1000000000000000								
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
Verify Start Push [ESC] key exit									
<<Key input>>									
0006 = 1000000000000000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

- If a difference in the compared contents is found during verification, the "Verify error. continue? [Y/N]" message will be displayed at the Status Line.

If "Y" is entered, verification will be continued.

If a character other than "Y" is entered, verification will be interrupted.

<< SP PARAMETER >>					ON LINE				
000-	1000000000000000								
0001-	1000000000000000								
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
Verify error. continue? [Y/N]									
<<Key input>>									
0006 = 1000000000000000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA				EXIT	FDUP	FDDN	VERF	STY	

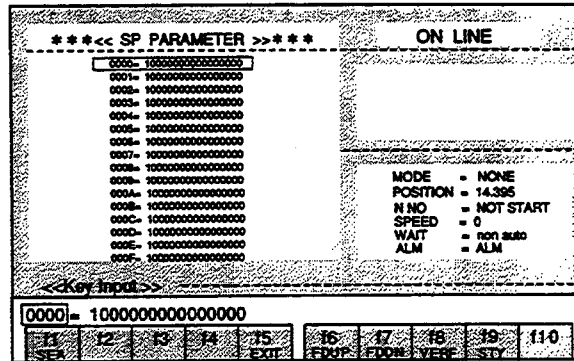
10.1 SPINDLE PARAMETER OPERATIONS (ONLINE)

■ f9 (STY) Status display

The conditions of MOTIONPACK are displayed.

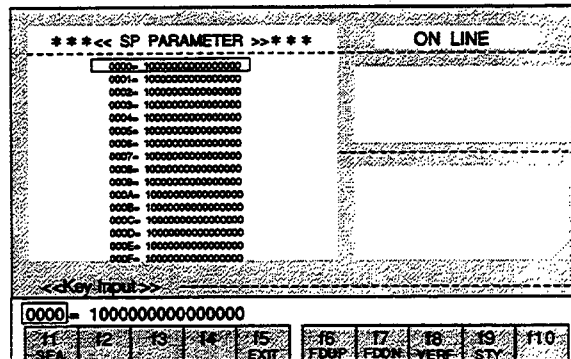
1. Press the f9 (STY) Key.

The six statuses of "MODE," "POSITION," "N NO," "SPEED," "WAIT," and "ALM" will be displayed at the right side of the screen.



2. Press the f9 (STY) Key again.

The status display will disappear.



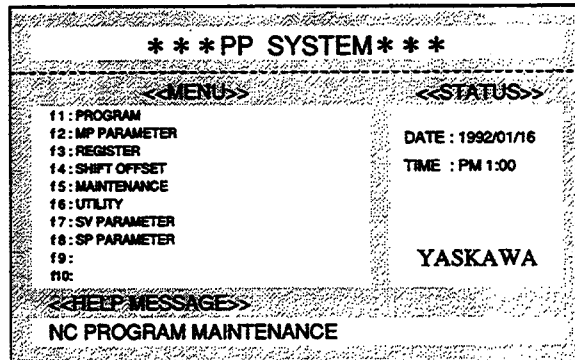
10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

The changing, uploading, and downloading of the spindle parameters are performed as explained below. File editing is performed in the offline mode.

The edited contents will become lost if editing is terminated without performing the save operation.

10.2.1 Basic Operations

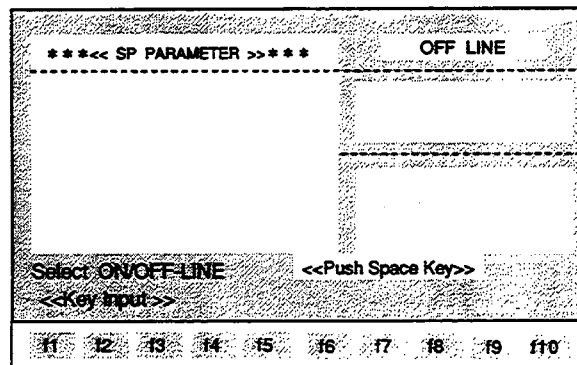
1. Select "SP PARAMETER" from the MENU Screen and press the f8 Key.
The Spindle Parameter Editing Screen will be displayed.



2. Select ONLINE or OFFLINE.

When the Space Key is pressed, the ONLINE/OFFLINE indication will be switched respectively. When the Enter Key is pressed when OFFLINE is indicated, OFFLINE will be selected.

<SPINDLE PARAMETER EDITING SCREEN>



10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

The File Selection Menu will be displayed.

Select the file name using the Cursor Keys and press the Enter Key.

```

***<< SP PARAMETER >>***          OFF LINE
-----
TEST1.SPP  TEST2.SPP  TEST3.SPP
TEST4.SPP  TEST5.SPP  TEST6.SPP

Select File Name
<<Key Input>>
-----
f1  f2  f3  f4  f5  f6  f7  f8  f9  f10
  
```

The contents of the parameters in the designated file will be displayed.

The parameters in the next page can be monitored by pressing the ROLL UP Key.

```

***<< SP PARAMETER >>***          OFF LINE
-----
0001- 1000000000000000
0002- 1000000000000000
0003- 1000000000000000
0004- 1000000000000000
0005- 1000000000000000
0006- 1000000000000000
0007- 1000000000000000
0008- 1000000000000000
0009- 1000000000000000
000A- 1000000000000000
000B- 1000000000000000
000C- 1000000000000000
000D- 1000000000000000
000E- 1000000000000000
000F- 1000000000000000

File Name
TEST1.SPP

<<Key Input>>
-----
0000- 1000000000000000
f1  f2  f3  f4  f5  f6  f7  f8  f9  f10
SEL  LOAD  SAVE  EXIT
  
```

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

10.2.2 Explanation of the Function Keys

f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

f1 SEA : Search for character string

f2 :

f3 LOAD : Loading of file

f4 SAVE : Save in file

f5 EXIT : Exiting

f6 :

f7 :

f8 :

f9 :

f10 :

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

10.2.3 Details of the Function Keys

■ f1 (SEA) Search for character string

The designated parameter number is searched for from the current cursor position.

1. Enter "0006" at the Input Line.

<< SP PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SPP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
0006-	1000000000000000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

2. Press the f1 (SEA) Key.

The cursor will move to 0006 line.

<< SP PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SPP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
0006-	1000000000000000								
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

< Spindle Parameter Changing Method >

To rewrite to "0006 = 5000".

1. Use the Right or Left Cursor Key to move the cursor of the Input Line to the data value of the parameter and press the BS Key or the DEL Key.

<< SP PARAMETER >>										OFF LINE	
0000-	1000000000000000									File Name	
0001-	1000000000000000									TEST1.SPP	
0002-	1000000000000000										
0003-	1000000000000000										
0004-	1000000000000000										
0005-	1000000000000000										
0006-	1000000000000000										
0007-	1000000000000000										
0008-	1000000000000000										
0009-	1000000000000000										
000A-	1000000000000000										
000B-	1000000000000000										
000C-	1000000000000000										
000D-	1000000000000000										
000E-	1000000000000000										
000F-	1000000000000000										
<<Key input>>											
0006 =											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		
SEA		LOAD	SAVE	EXT							

2. Enter "5000" and press the Enter Key.

<< SP PARAMETER >>										OFF LINE	
0000-	1000000000000000									File Name	
0001-	1000000000000000									TEST1.SPP	
0002-	1000000000000000										
0003-	1000000000000000										
0004-	1000000000000000										
0005-	1000000000000000										
0006-	1000000000000000										
0007-	1000000000000000										
0008-	1000000000000000										
0009-	1000000000000000										
000A-	1000000000000000										
000B-	1000000000000000										
000C-	1000000000000000										
000D-	1000000000000000										
000E-	1000000000000000										
000F-	1000000000000000										
<<Key input>>											
0006 = 5000											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		
SEA		LOAD	SAVE	EXT							

The parameter will be changed.

<< SP PARAMETER >>										OFF LINE	
0000-	1000000000000000									File Name	
0001-	1000000000000000									TEST1.SPP	
0002-	1000000000000000										
0003-	1000000000000000										
0004-	1000000000000000										
0005-	1000000000000000										
0006-	5000										
0007-	1000000000000000										
0008-	1000000000000000										
0009-	1000000000000000										
000A-	1000000000000000										
000B-	1000000000000000										
000C-	1000000000000000										
000D-	1000000000000000										
000E-	1000000000000000										
000F-	1000000000000000										
<<Key input>>											
0006 = 5000											
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10		
SEA		LOAD	SAVE	EXT							

If a change to "0006 = 10000" was made by mistake when the change to "0007 = 10000" was intended:
If the Enter Key has not been pressed yet, press the ESC Key.
The conditions will return to those prior to the change.

Note: The edited contents will become lost if editing is terminated without performing the save operation (see f4 (SAVE)).

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

■ f3 (LOAD) Loading of file

The data of the designated file are transferred to the RAM of the personal computer.

1. Press the f3 (LOAD) Key.

<< SP PARAMETER >>					OFF LINE					
0000-	1000000000000000									File Name
0001-	1000000000000000									TEST1.SPP
0002-	1000000000000000									
0003-	1000000000000000									
0004-	1000000000000000									
0005-	1000000000000000									
0006-	1000000000000000									
0007-	1000000000000000									
0008-	1000000000000000									
0009-	1000000000000000									
000A-	1000000000000000									
000B-	1000000000000000									
000C-	1000000000000000									
000D-	1000000000000000									
000E-	1000000000000000									
000F-	1000000000000000									
<<Key Input>>										
0000-	1000000000000000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA		LOAD	SAVE	EXIT						

2. The File Selection Menu will be displayed.
Select the file name using the Cursor Keys and press the Enter Key.

<< SP PARAMETER >>					OFF LINE					
TEST1.SPP	TEST2.SPP	TEST3.SPP								
TEST4.SPP	TEST5.SPP	TEST6.SPP								
Select File Name										
<<Key Input>>										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	

The contents of the selected file will be displayed in the Text Screen.

<< SP PARAMETER >>					OFF LINE					
0000-	2000000000000000									File Name
0001-	2000000000000000									TEST2.SPP
0002-	2000000000000000									
0003-	2000000000000000									
0004-	2000000000000000									
0005-	2000000000000000									
0006-	2000000000000000									
0007-	2000000000000000									
0008-	2000000000000000									
0009-	2000000000000000									
000A-	2000000000000000									
000B-	2000000000000000									
000C-	2000000000000000									
000D-	2000000000000000									
000E-	2000000000000000									
000F-	2000000000000000									
<<Key Input>>										
0000-	2000000000000000									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA		LOAD	SAVE	EXIT						

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

■ f4 (SAVE) Save in file

The data in the RAM of the personal computer are saved in a file.

1. Press the f4 (SAVE) Key.
2. If the data are to be saved in the file displayed at the Input Line, just press the Enter Key.

<< SP PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SPP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
<<Key Input>>									
File Name = TEST1									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

If the data are to be saved in a new file, enter the file name and then press the Enter Key.

<< SP PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SPP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
<<Key Input>>									
File Name = TEST2									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

The "SAVE START" and "SAVE END" messages will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SP PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SPP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
SAVE START									
<<Key Input>>									
File Name = TEST1_									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

Note: The edited contents will become lost if editing is terminated without performing the save operation.

<< SP PARAMETER >>					OFF LINE				
000-	1000000000000000				File Name				
001-	1000000000000000				TEST1.SPP				
002-	1000000000000000								
003-	1000000000000000								
004-	1000000000000000								
005-	1000000000000000								
006-	1000000000000000								
007-	1000000000000000								
008-	1000000000000000								
009-	1000000000000000								
00A-	1000000000000000								
00B-	1000000000000000								
00C-	1000000000000000								
00D-	1000000000000000								
00E-	1000000000000000								
00F-	1000000000000000								
SAVE END									
<<Key Input>>									
0000= 1000000000000000									
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
SEA		LOAD	SAVE	EXIT					

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

■ f5 (EXIT) Exiting

1. Press the f5 (EXIT) Key.

The "EXIT OK?(Y/N)" message will be displayed at the Status Line.

2. Enter "Y".

When a character other than "Y" is entered, editing will be continued.

<< SP PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SPP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
EXIT OK?(Y/N)									
<<Key Input>>									
0000-	1000000000000000								
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

3. The "SAVE OK? (Y/N)" message will be displayed at the Status Line.

Enter "Y".

When a character other than "Y" is entered, editing will be terminated without saving and the display will return to the MENU Screen.

<< SP PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SPP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
SAVE OK?(Y/N)									
<<Key Input>>									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

4. If the edited contents are to be saved in the file that is displayed at the Input Line, just press the Enter Key.

<< SP PARAMETER >>					OFF LINE				
0000-	1000000000000000				File Name				
0001-	1000000000000000				TEST1.SPP				
0002-	1000000000000000								
0003-	1000000000000000								
0004-	1000000000000000								
0005-	1000000000000000								
0006-	1000000000000000								
0007-	1000000000000000								
0008-	1000000000000000								
0009-	1000000000000000								
000A-	1000000000000000								
000B-	1000000000000000								
000C-	1000000000000000								
000D-	1000000000000000								
000E-	1000000000000000								
000F-	1000000000000000								
<<Key Input>>									
File Name = TEST1_									
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10
SEA		LOAD	SAVE	EXIT					

10.2 SPINDLE PARAMETER OPERATIONS (OFFLINE)

If the edited contents are to be saved in a new file, enter the file name and then press the Enter Key.

<< SP PARAMETER >>					OFF LINE					
0001-	1000000000000000				File Name					
0002-	1000000000000000				TEST1.SPP					
0003-	1000000000000000									
0004-	1000000000000000									
0005-	1000000000000000									
0006-	1000000000000000									
0007-	1000000000000000									
0008-	1000000000000000									
0009-	1000000000000000									
000A-	1000000000000000									
000B-	1000000000000000									
000C-	1000000000000000									
000D-	1000000000000000									
000E-	1000000000000000									
000F-	1000000000000000									
<<Key Input>>										
File Name = TEST2_										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA		LOAD	SAVE	EXIT						

The "SAVE START" message will be displayed at the Status Line.

The saving process will be interrupted when the ESC Key is pressed during the saving process.

<< SP PARAMETER >>					OFF LINE					
0001-	1000000000000000				File Name					
0002-	1000000000000000				TEST1.SPP					
0003-	1000000000000000									
0004-	1000000000000000									
0005-	1000000000000000									
0006-	1000000000000000									
0007-	1000000000000000									
0008-	1000000000000000									
0009-	1000000000000000									
000A-	1000000000000000									
000B-	1000000000000000									
000C-	1000000000000000									
000D-	1000000000000000									
000E-	1000000000000000									
000F-	1000000000000000									
<<Key Input>>										
File Name = TEST2_										
f1	f2	f3	f4	f5	f6	f7	f8	f9	f10	
SEA		LOAD	SAVE	EXIT						

The display will return to the MENU Screen when saving is completed.

PP SYSTEM										
<<MENU>>					<<STATUS>>					
f1	PROGRAM				DATE	1992/01/16				
f2	MP PARAMETER				TIME	PM 1:00				
f3	REGISTER				YASKAWA					
f4	SHIFT OFFSET									
f5	MAINTENANCE									
f6	UTILITY									
f7	SV PARAMETER									
f8	SP PARAMETER									
f9										
f10										
<<HELP MESSAGE>>										
NC PROGRAM MAINTENANCE										

APPENDIX ALARM MAINTENANCE

Appendix 1 Alarm Maintenance List

No.	Alarm Name	Maintenance Message
1	CPU Error	Replace MOTIONPACK-SG1.
2	Program Alarm	Check the NC program.
3	Parameter Alarm	Check all parameter data.
4	Emergency Stop	Check the main circuit power supply.
5		
6	Current Limit	Current saturation. Check torque limit data.
7	Forward O.T.	Check the P-OT (forward over travel) signal. Move machine reverse by -JS to reset.
8	Reverse O.T.	Check the N-OT (reverse over travel) signal. Move machine forward by +JS to reset.
9	Set up Alarm	Confirm the relation between moving direction in Pr70 and sign Pr72.
10		
11		
12		
13	Power Down	Check power supply. Turn on the ERS (fault reset) signal to reset.
14	Battery Down	Replace the battery for memory backup and absolute encorder.
15	Pos + Over	Check the aimed position in excuting NC program or the current position. Move machine reverse by -JS to reset.
16	Pos - Over	Check the aimed position in excuting NC program or the current position. Move machine reverse by +JS to reset.
17		
18		
19	Inpost Alarm	Check in-position range (Pr36). Check the frictional resistance in the machine slide. Confirm torque reference.
20	Ext-Pos Alarm	Check the /EXT (external positioning) signal.
21	Skip On	Check the ESP5 or ESP6 (skip) signal.
22	Abso P.G.	Check wiring to encorder. Sure machine is moved over Pr77 while power off. If there is no problem, set Pr78=1 and turn off/on power supply.
23	DGSW Alarm	Check the sequence of external data setting.
24		

Nó.	Alarm Name	Maintenance Message
25	Register Alarm	Check all register data.
26	System Alarm	Check presence of spindle (Pr99). Check connection to servo and spindle. Check slave No. of servo and spindle. Replace MOTIONPACK-SG1.
27	Com. Err	Press CLR key on Programming panel.
28		
29		
30	Condition Par	Check the parameter (Pr190, Pr191) which decide the condition of serial communication.
31	Serial Alarm	Check the wiring of serial communication.
32	S-I/F Down	Check the parameters (Pr190, Pr191) which decide the condition of serial communication. Check slave No. of serial communication. Check the wiring of serial communication. Replace MOTIONPACK-SG1.
33		
34		
35	SV ALM (XXX)	XXX is the Alarm code in Servo driver. Refer to the manual of servo driver.
36	SP ALM (XXX)	XXX is the Alarm code in Spindle driver. Refer to the manual of Spindle driver.

MOTIONPACK-SG1

PERSONAL COMPUTER PROGRAMMER OPERATING MANUAL

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Specifications are subject to change without notice
for ongoing product modifications and improvements.

MANUAL NO. TOE-C884-1.2

© Printed in Japan October 1997 97-10 0.1