

R2J50L
DASEN-3i
FANUC 0i SERIES

CNC SYSTEM

OPERATOR'S MANUAL

FOR COMMUNICATION INTERFACE

CONTENTS

1 OPERATION EXPLANATION OF COMMUNICATION SOFTWARE (PC-CNC) OF COMPUTER	1
1.1 ENTRY OF COMMUNICATION SOFTWARE	1
1.2 OPERATION OF DATA OUTPUT	1
1.3 OPERATION OF DATA INPUT	1
1.4 DOS FUNCTION	2
1.5 WITHDRAWING OF COMMUNICATION SOFTWARE	2
1.6 OFF-LINE EDIT OF TURNING PROGRAM	2
2. OPERATION OF COMMUNICATION OF FANUC 0I(MATE) SERIES CNC SYSTEM	3
2.1 SETTING OF COMMUNICATION PARAMETERS OF CNC SYSTEM	3
2.2 OPERATION OF DATA OUTPUT	3
2.2.1 OUTPUT OF TURNING PROGRAM	3
2.2.2 OUTPUT OF TOOL DEVIATION AMOUNT	3
2.2.3 OUTPUT OF SYSTEM PARAMETERS	4
2.3 INPUT OPERATION OF DATA	4
2.3.1 INPUT OF TURNING PROGRAMS	4
2.3.2 INPUT OF TOOL DEVIATION AMOUNT	5
2.3.3 INPUT OF THE SYSTEM PARAMETERS	5
3. OPERATION OF COMMUNICATION OF R2J50L CNC SYSTEM	6
3.1 SETTING OF COMMUNICATION PARAMETERS OF CNC SYSTEM	6
3.2 OPERATION OF DATA OUTPUT	6
3.3 OPERATION OF DATA INPUT	7
4. OPERATION OF COMMUNICATION OF DASEN 3I CNC SYSTEM	8
4.1 SETTING OF COMMUNICATION PARAMETERS OF CNC SYSTEM	8
4.2 OPERATION OF DATA OUTPUT	8
4.3 OPERATION OF DATA INPUT	8
5.WELDING DIAGRAM OF CABLE FOR COMMUNICATION INTERFACE OF CNC SYSTEM	10

1 OPERATION EXPLANATION OF COMMUNICATION

SOFTWARE (PC-CNC) OF COMPUTER

1.1 Entry of Communication Software

You can enter into the main page of communication software according to following operating steps:

- 1) Start the computer, coming into the operation system of DOS;
- 2) Enter into the subdirectory of SEND;
- 3) Input "PC-CNC", entering into the main page of communication software.

Note: After any seasonal operation on the communication software, press the key can return to the main page.

1.2 Operation of Data Output

Before the operation, it is necessary to let CNC system be under input status. You can output the data (turning programs, deviation amount of tool and parameters of the system, etc.) for CNC system according to following steps.

- 1) Press the + keys, displaying "LINE SETTING" figure frame;
- 2) Select the communication parameter within the "LINE SETTING" figure frame. "4800, E, 7, 2, COM1(2, 3, 4)" is recommended to be selected;

Note: Select COM1, COM2, COM3 or COM4 according to the interface used by computer.

- 3) Press the key , display "UPLOAD" figure frame;
- 4) Input "7", displaying "ASCII UPLOAD";
- 5) Enter required output file name (including path), and at the same time, "ASCII FILE UPLOAD" displayed at the bottom of the page, which shows the computer is outputting data and content of this file is displaying in rolling. After end of output, the computer returns to the main page automatically.

1.3 Operation of Data Input

After the operation, the computer will be under input status, at this moment, start CNC system with the output data(turning programs, deviation amount of tool and parameters of the system, etc.)

- 1) Press the + keys, displaying "LINE SETTING" figure frame;
-

- 2) Select the communication parameters within the “LINE SETTING” figure frame. “4800, E, 7, 2, COM1(2、 3、 4)” is recommended to be selected;

Note: Select COM1, COM2, COM3 or COM4 according to the interface used by computer.

- 3) Press the key

PAGE DOWN

, displaying “DOWNLOAD” figure frame;
- 4) Enter “7”, displaying “ASCII DOWNLOAD”;
- 5) Enter file name (including the path), and at this moment, “ASCII FILE DOWNLOAD” displayed at the bottom of the page, which shows the computer is under input waiting status.
- 6) After end of input, press the key

ESC

 to return to the main page automatically

1.4 DOS Function

This software can come into DOS status with status of no withdrawing. The operating steps are as follows:

- (1) Press the keys

ALT

 +

F4

, coming into DOS status. Enter “exit”, returning to the main page with DOS prompt.

1.5 Withdrawing of Communication Software

Press the keys

ALT

 +

X

, displaying prompting frame. After entering “Y”, it is possible to withdraw the communication software.

1.6 Off-line Edit of Turning Program

The turning programs can be programmed by “EDIT” of DOS.

2. OPERATION OF COMMUNICATION OF FANUC 0i(mate) SERIES CNC SYSTEM

2.1 Setting of Communication Parameters of CNC System

Set the communication parameters of the system according to following table, please.

Parameter	Parameter Value	Remarks
ISO	1	
20	0	I/O path: 0
101	1	Stop bit: 2 bits
102	0	RS-232-C
103	10	Baud rate: 4800

Note: For detailed description about parameters listed in above table, refer to the 《FANUC 0i(mate) Operation Manual》, please.

2.2 Operation of Data Output

Before this operation, it is necessary to make the computer being the input status.

2.2.1 Output of Turning Program

You can output the turning programs into the computer according to the following steps.

- 1) Select the mode of EDIT;
- 2) Press the key to select the page of turning programs;
- 3) Input “O”, and “program No. (or-9999)”;
- 4) Press the key , displaying “OUTPUT”.

After finishing the above operation, one turning program (or all of the turning programs) will be output and entered into the computer.

2.2.2 Output of Tool Deviation Amount

Amount of tool deviation can be output and entered into the computer according to the following.

- 1) Select the mode of EDIT;
- 2) Press the key , selecting the displaying page for data of tool

deviation;

- 3) Press the key , and at this moment “OUTPUT” displayed. After finishing the above operation, the deviation amount of tool will be output and input into the computer.

2.2.3 Output of System Parameters

Parameters of the system can be output and entered into the computer according to the following.

- 1) Select the mode of EDIT;
- 2) Press the key , selecting the displaying page for parameters;
- 3) Press the key , and at this moment “OUTPUT” being displayed.

After finishing the above operation, the system parameters will be output into the computer.

2.3 Input Operation of Data

After this operation, CNC system is under status of input, and at this moment, start the computer for output, the data (turning programs, tool deviation amount and the system parameters) are to be input into CNC system from the computer.

2.3.1 Input of Turning Programs

- 1) Select the mode of EDIT
- 2) Press the key , selecting the page of turning program;
- 3) Turn on the switch for storage protection
- 4) Input “O”, and “Program No.”;
- 5) Press the key , and at this moment “SKIP” being displayed;
- 6) After finishing the turning program, turn off the protection switch of the program

2.3.2 Input of Tool Deviation Amount

- 1) Select the mode of EDIT;
- 2) Press the key , selecting the displaying page for data of tool deviation amount.
- 3) Press the key , and at this moment “SKIP” being displayed.
- 4) After finishing the input, the input data of the deviation amount of tool can be displayed on the screen. Please confirm the amount of tool deviation is correct or not.

2.3.3 Input of the System Parameters

- 1) Press the E-stop button on the side of the machine tool, entering the emergency status for the machine;
 - 2) Press the key to select the displaying page of parameters;
 - 3) Set the PWE as 1, and the alarm P/S 100 being displayed;
 - 4) Press the key , displaying “SKIP”;
 - 5) After the input, set the “PWE” as 0;
 - 6) Restart the CNC system;
 - 7) Release the E-stop button on the side of the machine to eliminate the emergency status for the machine.
-

3. OPERATION OF COMMUNICATION OF R2J50L CNC SYSTEM

3.1 Setting of Communication Parameters of CNC System

Set the communication parameters for CNC system according to the following table, please

Parameter No.	Parameter Value	Remarks
6025	57	Recommended Baud rate:4800 Recommended stop bit: 2 bits
6026	57	
6027	57	
6028	57	

Note: For detailed description about parameters listed in table mentioned above, refer to the 《R2J50L Operation Manual》, please.

3.2 Operation of Data Output

Before the operation, let the CNC system be under the sending status and the computer be under receiving status.

According to the following to output the data(turning programs, deviation amount of tool and parameters of the system, etc.) into the computer.

- 1) Select the mode of EDIT.
- 2) Press the key , displaying all turning programs on the page.
- 3) Input the program No. which is required to be output, for example, "O0004"
- 4) Press the key , displaying "OUT" on the screen and it's flashing.
- 5) After finishing the output, "OUT" stops flashing, and at this moment the data will be output into the computer
- 6) If it is necessary to output the parameter, press the key ,and then press the key directly.
- 7) If it is necessary to output the tool compensation, press the key , and then press the key directly.
- 8) If it is necessary to output PLC programs, the special program panel

for R2J50L is needed, and for the specific operation will not be introduced here.

3.3 Operation of Data Input

Before the operation, let the CNC system be under the receiving status and the computer be under sending status. And at this moment, start the computer to send the data (turning programs, deviation amount of tool and parameters of the system, etc.) into CNC system. The specific operating steps are as following:

- 1) Select the mode EDIT;
 - 2) Press the key , displaying all turning programs on the page.
 - 3) Input the program No. which is required to be output, for example, “O0004”;
 - 4) Press the key , “IN” being display on the screen and it’s flashing.
 - 5) After finishing the input , “IN” stops flashing, and at this moment the data will be output into the computer.
 - 6) If it is necessary to input the parameters, press the key , and then press the key directly.
 - 7) If it is necessary to input the data of tool compensation, press the key , and then press the key directly.
 - 8) If it is necessary to input PLC programs, the special program panel for R2J50L is needed, and for the specific operation will not be introduced here.
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4. OPERATION OF COMMUNICATION OF DASEN 3i CNC SYSTEM

4.1 Setting of Communication Parameters of CNC System

Set the communication parameters for CNC system according to the following table, please.

Parameter No.	Parameter Value	Remarks
9102	2 (recommended value)	Recommended Baud rate: 4800
9103	3 (recommended value)	
9106	2 (recommended value)	

Note: For detailed description about parameters listed in table mentioned above, refer to the 《DASEN 3i Operation Manual》, please.

4.2 Operation of Data Output

Before the operation, it is necessary to let the computer be under input status. According to the following to output the data (turning programs, deviation amount of tool and parameters of the system, etc.) into the computer.

1) Select the Diagnosis Page;

2) Press the key

3) Input , “XXXX” represents the Program No.; Under “ALL” status, all programs shall be output;

4) Press the key , starting the output of data and displaying the output being executed.

After finishing the output, completion of data output will be displayed and at the moment the data is output into the computer.

4.3 Operation of Data Input

After the operation, the CNC system will be under the input status. And at this moment, start the computer to output the data (turning programs, deviation amount of tool and parameters of the systems, etc.) into CNC system. The specific operation steps are as following:

1) Select the Diagnosis Page;

2) Press the key

3) Input , entering the mode of INPUT;

- 4) While program No. is available, input , and while program No. is not available, input , “XXXX” represents the Program No.;
- 5) Press the key , starting the output of data and displaying the output being executed
- 6) After finishing the input, “COMPLETION OF DATA INPUT” will be displayed.

#	Item	Contents
1	Turning pattern	Input status of turning pattern
2	Tool data	Input status of tool data
3	Parameters	Input status of parameters
5	Common variable	Input status of common variable
30	Macro pattern	Input status of macro pattern
10	Mode	1: INPUT 2: COMPARASION

5.WELDING DIAGRAM OF CABLE FOR COMMUNICATION

INTERFACE OF CNC SYSTEM

25 CORES (PIN) 9 CORES (HOLE)
(ATTENDANT BOX) (COMPUTER SIDE)

