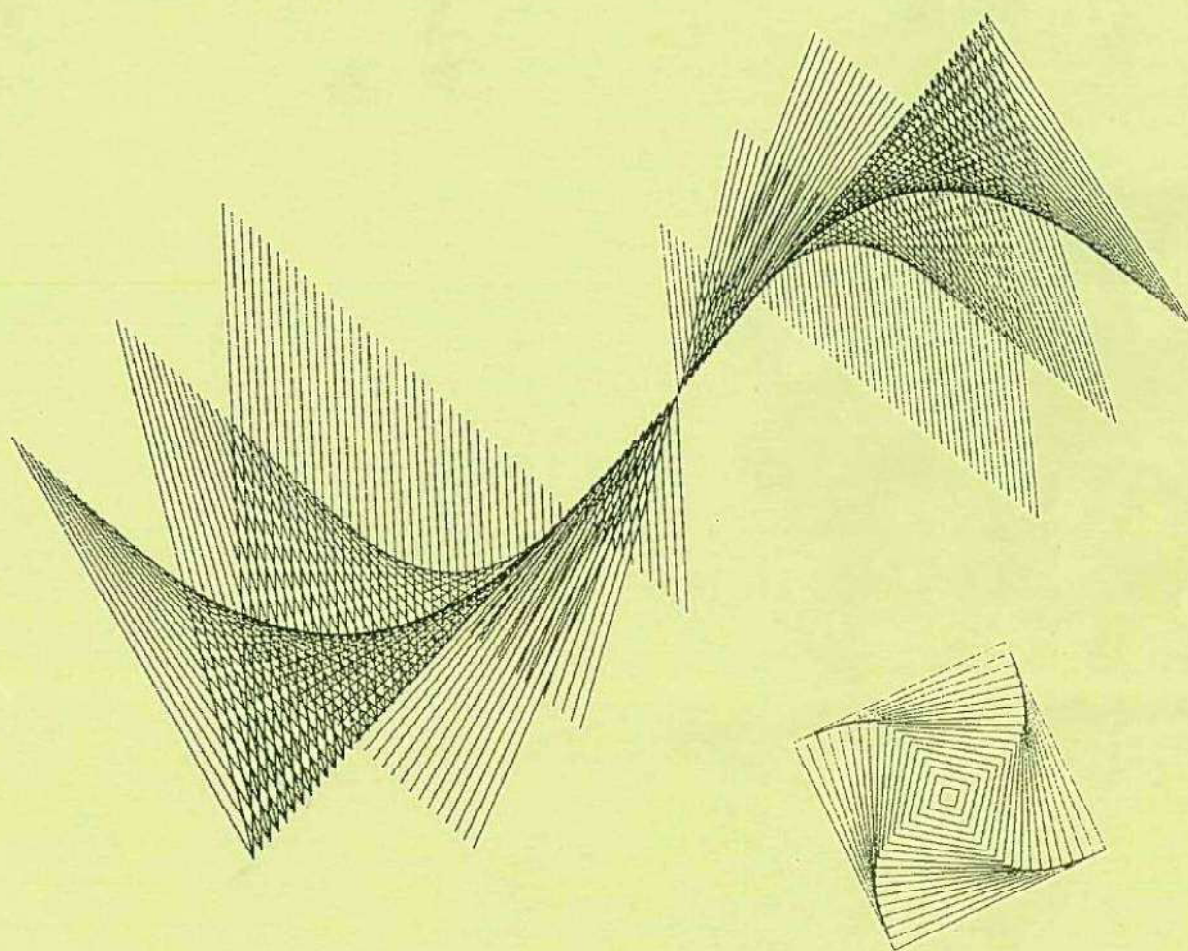


(INSTRUCTION MANUAL)

WIRE-CUT EDM

NC POWER SUPPLY UNIT "MARK 20 SERIES"

CONTROL SYSTEM



FINE Sodick
SODICK Co., Ltd.

Ver. 2.1A

CONTROL SYSTEM

TABLE OF CONTENTS

CHAPTER 1. SYSTEM CONFIGURATION	1 - 1
1) General	1 - 1
2) Features	1 - 1
3) Accessories	1 - 2
4) Configuration	1 - 3
5) Component Designation and Function (EC specification)	1 - 6
6) Component Designation and Function (Standard)	1 - 9
CHAPTER 2. STARTUP OF NC POWER SUPPLY UNIT	2 - 1
1) General	2 - 1
2) System Starting Procedure	2 - 1
3) System Ending Procedure	2 - 3
4) Points to Note when Handling Power Unit in Hard Disk Version	2 - 4
CHAPTER 3. OPERATION	3 - 1
1) General	3 - 1
2) Key Arrangement	3 - 1
3) Mode Selection	3 - 1
4) HF Key Function	3 - 2
5) List of Modes	3 - 2
6) How to Use Keyboard	3 - 4
6)-1 Keys usable for data input	3 - 4
6)-2 Keys for cursor movement	3 - 5
6)-3 Other keys	3 - 6

CHAPTER 4. MASTER MODE	4-1
1) General	4-1
2) Run Modes	4-4
2)-1 DISK RUN	4-4
2)-2 RAM RUN	4-4
2)-3 PORT RUN	4-5
2)-4 GRAPH RUN	4-5
2)-5 Functions during NC Program Execution	4-5
3) DISK RUN	4-6
4) RAM RUN	4-9
5) PORT RUN	4-10
5)-1 PTR RUN	4-10
5)-2 PORT RUN	4-11
6) GRAPH RUN	4-12
7) Setting of Flags for Program Execution	4-18
7)-1 HF keys Function	4-18
7)-2 How to Use HF keys	4-22
CHAPTER 5. MANUAL MODE	5-1
1) General	5-1
2) Main Mode	5-2
2)-1 Function "Travel"	5-2
2)-2 Function "Position"	5-6
2)-3 HF keys Function	5-7
2)-4 How to use HF keys	5-8
3) Submode "Cutting"	5-10
4) Submode "M·T"	5-12
5) MDI	5-15
5)-1 HF Key Function	5-16

CHAPTER 6 . EDIT MODE	6 - 1
1) General	6 - 1
2) Editing	6 - 2
2)-1 Editing of NC Program	6 - 2
2)-2 How to Use HF Keys for Editing	6 - 3
3) Submode "File"	6 - 8
3)-1 HF Key Function	6 - 8
4) Communication with External Device	6 - 18
4)-1 HF Key Function	6 - 19
5) Submode "Graphic"	6 - 26
5)-1 HF Key "CUTNPASS SCREEN"	6 - 26
5)-2 HF Key "ENLARGE"	6 - 30
5)-3 Other HF Keys	6 - 31
6) SCRNCND INPUT (Graphic condition input)	6 - 33
6)-1 Function "Taper data"	6 - 33
6)-2 Function "Graphic data"	6 - 34
 CHAPTER 7 . DISPLAY MODE	 7 - 1
1) General	7 - 1
2) Main Mode	7 - 2
3) Submode "READ"	7 - 4
4) Submode "MENTE"	7 - 5
 CHAPTER 8 . SET MODE	 8 - 1
1) General	8 - 1
2) FLAG SET	8 - 3
3) MACHINE	8 - 14
4) DISCHARGE	8 - 21
5) TRAVEL	8 - 28
6) MOTOR	8 - 47

1-8	6)-1	For G/C types	8-47
1-8	6)-2	For P type	8-55
2-8	7)	AXIS	8-61
2-8	7)-1	For G/C types	8-61
2-8	7)-2	For P type	8-64
2-8	8)	SERIAL/PRT	8-66
2-8	9)	OFFSET (for P type)	8-73
21-8	10)	CUTTING	8-74
21-8	11)	CHECK	8-76
23-8	11)-1	IN/OUT (A0000H)	8-77
23-8	11)-2	IN/OUT (A0072H)	8-78
23-8	11)-3	IN/OUT (A0080H)	8-79
23-8	11)-4	IN/OUT (A00B9H)	8-80
23-8	11)-5	OUT (A00F2H)	8-81
23-8	11)-6	IN/OUT (A0100H)	8-82
23-8	11)-7	IN (A0172H)	8-83
	12)	DISK	8-84
1-7	12)-1	USER FORMAT	8-85
1-7	12)-2	USER COPY	8-87
2-7	12)-3	DATA BACK-UP	8-94
4-7	12)-4	SETTING CHECK	8-96
5-7	12)-5	SYSTEM BACK-UP	8-97
	12)-6	DATA CONVERT	8-99
1-8	12)-7	AUTOLOAD FILE	8-100
1-8	13)	DISK (for hard disk version)	8-103
2-8	13)-1	USER FORMAT	8-104
41-8	13)-2	USER COPY	8-107
12-8	13)-3	DATA BACK-UP	8-113
22-8	13)-4	SETTING CHECK	8-114
21-8	13)-5	INSTALL	8-115

13)-6	AUTOLOAD FILE	8-116
13)-7	File Extension Setting	8-118
CHAPTER 9. UTY		
1)	General	9-1
CHAPTER 10. SATELLITE CONTROL (only for P type)		
1)	General	10-1
2)	Display Section	10-2
3)	Operation Switch Section	10-2
4)	Axis Control Section	10-4
5)	Coordinate Setting Section	10-5
6)	System Control Section	10-6
7)	Function Section	10-7
CHAPTER 11. REMOTE CONTRL BOX (only for G type)		
1)	General	11-1
2)	Function keys	11-2
3)	Function Selection Keys	11-3
4)	JOG Keys	11-3
5)	System Control Keys	11-4
6)	Axis Control Key	11-4
CHAPTER 12. HOW TO USE EDITOR		
1)	General	12-1
2)	To Create Triangle Cutting Program	12-1
3)	To Change to Square Cutting Program	12-4

CHAPTER 13. SYSTEM FILE	13- 1
1) General	13- 1
2) STRING FILE	13- 2
3) CONDITION FILE	13- 6
4) OFFSET FILE	13- 8
5) NEW FILE	13-10
CHAPTER 14. INFORMATION	14- 1
1) Serial Interface	14- 1
2) DRY RUN	14-24
3) CONDITION OFFSET FILE	14-25
4) System Version Updating and Installation	14-26
5) OFF key	14-34
6) CALENDAR Function	14-36
7) Machine State Display Function	14-37
8) Coordinate System Display Function	14-38
CHAPTER 15. APPENDIX	15- 1
1) Precautions	15- 1
2) Edit Graphic Support NC Code	15- 2
3) Error Comments (for System Errors)	15- 6