

INSTRUCTION MANUAL
ON
OPERATION
NC ELECTRICAL DISCHARGE MACHINE
MGC POWER SUPPLY



MAKINO MILLING MACHINE CO., LTD.

MGC-F1-8803(E)

TABLE OF CONTENTS

1. INTRODUCTION	
2. OPERATION OF EACH UNIT	
2.1 CRT Display	2-1
2.2 Main Operation Panel	2-5
2.3 Portable Operation Panel	2-23
2.4 Tape Reader	2-31
3. POWER ON/OFF	
3.1 Power On	3-1
3.2 Power Off	3-1
4. OUTLINE OF SCREEN OPERATION	
4.1 Basic Principle of Screen Operation	4-1
4.2 Switching of Screen	4-1
4.3 Function Key	4-2
4.4 Data Input on Key-in Line	4-3
5. CONFIGURATION OF ALL SCREENS	
5.1 Configuration of All Screens	5-1
6. FUNCTION OUTLINE OF ALL SCREENS	
6.1 Function Outline of Run Screen	6-1
6.2 Function Outline of Run Program Screen	6-2
6.3 Function Outline of Edit Screen	6-3
6.4 Function Outline of Machining Condition Screen	6-4
6.5 Function Outline of NC Function Screen	6-5
6.6 Function Outline of Position Screen	6-6
6.7 Function Outline of Graphic Screen	6-7
6.8 Function Outline of Set Screen	6-8
6.9 Function Outline of Diagnosis Screen	6-9
6.10 Function Outline of Optional Function Screen	6-10
6.11 Function Outline of Model Screen	6-11
7. OPERATION OF RUN SCREEN	
7.1 Outline of Run Screen	7-1
7.2 Operation of Manual Run Screen	7-5
7.3 Operation of MDI Run Screen	7-6
7.4 Operation of Memory Run Screen	7-13
7.5 Operation Tape Set Screen	7-15

8. OPERATION OF RUN PROGRAM SCREEN	
8.1 Operation of Nest Run Program Screen	8-1
8.2 Operation of Block Run Program Screen	8-4
8.3 Operation of Macro Variable Run Program Screen	8-7
9. OPERATION OF EDIT SCREEN	
9.1 Edit Screen Composition	9-1
9.2 Operating Procedure on List Screen	9-7
9.3 Editing on Block Screen	9-27
9.4 NC Program Protection	9-45
9.5 Background Edition Function	9-46
10. OPERATION OF MACHINING CONDITION SCREEN	
10.1 Operation of Run Main Condition Screen	10-1
10.2 Operation of Run Sub Condition Screen	10-8
10.3 Operation of Condition List Screen	10-10
11. OPERATION OF NC FUNCTION SCREEN	
11.1 Operation of NC Function Screen	11-1
12. OPERATION OF POSITION SCREEN	
12.1 Operation of Machine Coordinate Position Screen	12-1
12.2 Operation of Work Coordinate Position Screen	12-3
12.3 Operation of Move Remainder Position Screen	12-7
12.4 Operation of Relative Coordinate Position Screen	12-8
12.5 Operation of Command Coordinate Position Screen	12-10
13. OPERATION OF GRAPHIC SCREEN	
13.1 General Description	13-1
13.2 Operation of Draw Display Screen	13-2
13.3 Operation of Draw Set Screen	13-12
13.4 Work Shape Setting Screen	13-17
13.5 Operation of Position and Model Display Screen	13-21
13.6 Operation of Nest Level Display Screen	13-22
13.7 Operation of Black Display Screen	13-23
13.8 Operation of Macro Variable Display Screen	13-24
14. OPERATION OF SET SCREEN	
14.1 Operation of Offset Screen	14-1
14.2 Operation of Work Offset Screen	14-2
14.3 Operation of Electrode Offset Screen	14-3
14.4 Operation of Set Data Screen	14-4
14.5 Operation of F4 Feed Screen	14-9

15. OPERATION OF DIAGNOSIS SCREEN

15.1	Operation of Alarm Screen	15-1
15.2	Operation of Warning Screen	15-4
15.3	Operation of Run Time Screen	15-6
15.4	Operation of Machining Time Recording Screen	15-7
15.5	Operation of Menu Screen	15-9
15.6	Operation of EIO Screen	15-10
15.7	Operation of MPC Screen	15-14
15.8	Operation of EIP Screen	15-16
15.9	Operation of IPS Screen	15-17
15.10	Operation of SVH Screen	15-18
15.11	Operation of Version Screen	15-19
15.12	Operation of Position Information Screen	15-20

16. OPERATION OF OPTIONAL FUNCTION SCREEN

16.1	Operation of Menu Screen	16-1
16.2	Operation of ATC Screen	16-2
16.3	Operation of MA Head Screen	16-4
16.4	Operation of 10 Valves Screen	16-5
16.5	Operation of P/C Screen	16-7
16.6	Operation of Machine Control Screen	16-8

17. OPERATION OF MODEL SCREEN

17.1	General Description of Model Screen	17-1
17.2	Selection of Model Screen	17-1
17.3	Model Screen Structure	17-3
17.4	Operation of Model Menu Screen	17-8
17.5	Operation of Talk Edit Screen	17-11
17.6	Operation of Model List Screen	17-16
17.7	Operation of Model Data Screen	17-18
17.8	Ending Procedure of Model Editing	17-21