

WIRE-CUT EDM SYSTEMS



**INSTALLATION,
MAINTENANCE
AND
INSPECTION**

MITSUBISHI ELECTRIC CORPORATION ©

(2nd version)

CONTENTS

1.	CONFIGURATION.....	1 - 1
2.	SPECIFICATIONS.....	2 - 1
2.1	Machine Unit.....	2 - 1
2.2	Power Supply Unit	2 - 2
2.3	Controller W4.....	2 - 3
3.	INSTALLATION.....	3 - 1
3.1	Installation Layout.....	3 - 1
3.2	Installation Location and Precautions.....	3 - 1
3.3	Power Supply.....	3 - 2
3.4	External Dimensions.....	3 - 8
4.	MECHANICAL ACCESSORIES.....	4 - 1
4.1	DWC90C Mechanical Accessories	4 - 1
4.2	DWC110C Mechanical Accessories.....	4 - 3
5.	SYSTEM LOADING.....	5 - 1
6.	PARAMETER SETTING.....	6 - 1
6.1	Back/Pitch ( →  →  → )	6 - 1
6.2	Pitch Error Compensation ( →  →  → )	6 - 6
7.	SPECIFYING INCH OR MILL (INCHES AND MILLIMETERS)	7 - 1
8.	TAPE READER USAGE.....	8 - 1
8.1	Tape Reader.....	8 - 1
8.2	Preparations and Adjustments.....	8 - 6
8.3	Peripheral Techniques	8 - 14

C Series

9.	MAINTENANCE AND INSPECTION	9 - 1
9.1	Inspection Tables	9 - 1
9.2	Lubrication Table	9 - 4
9.3	Recommended Oil List	9 - 8
9.4	X/Y Drive Motor Maintenance and Inspection	9 - 9
9.5	Lower Roller Maintenance and Inspection	9 - 13
9.6	Wire Guide Maintenance	9 - 16
10.	MACHINING SYSTEM CONSUMABLES CHART	10 - 1
11.	DIELECTRIC FLUID RESERVOIR MAINTENANCE	11 - 1
11.1	Names of Major Components	11 - 1
11.2	Operating Procedures	11 - 2
11.3	Rust Inhibitor and Adjustment Solution	11 - 2
11.4	Water Purifier (Ion Exchanger Resin) Replacement	11 - 3
11.5	Dielectric Fluid Replenishment	11 - 4
11.6	Filter Element Replacement	11 - 5
11.7	Setting Flow Rate Range (with Optional Automatic Second Cut)	11 - 7
11.8	No Filter Pump Pressure Increase	11 - 7
11.9	Cleaning the Resistivity Sensor	11 - 8
12.	ALARM/DIAGNOSIS	12 - 1
12.1	Alarm ( →  → )	12 - 1
12.2	Input IF ( →  → )	12 - 3
12.3	Output IF ( →  → )	12 - 4
12.4	Servo IF ( →  → )	12 - 5
12.5	Memory Display ( →  → )	12 - 6

13.	SELF-DIAGNOSIS FUNCTION	13 - 1
13.1	NC Alarm	13 - 2
13.2	Stop Code	13 - 2
13.3	NC Alarm Memo, Stop Code Memo	13 - 2
13.4	NC Ready Off Status	13 - 2
13.5	Bubble Alarm Countermeasures	13 - 3
14.	MAINTENANCE SCREEN	14 - 1
14.1	Initial Value Input	14 - 2
14.2	Initialization	14 - 3
15.	RADIO FREQUENCY INTERFERENCE CAUSED BY WIRE-CUT EDM SYSTEM AND ITS PREVENTIVE MEASURES	15 - 1
15.1	Actual Examples of Radio Frequency Interference	15 - 1
15.2	Propagation Route of Radio Frequency Interference	15 - 3
15.3	Radio Frequency Interference Caused by Wire-Cut EDM Systems and Installation Conditions	15 - 4
15.4	How to Prevent Radio Frequency Interference	15 - 5
15.5	Regulations Related to Radio Frequency Interference	15 - 24
15.6	Actual Insulated Room Preparations	15 - 25