
SEIKI-SEICOS
Σ 10/16/18/21
INSTRUCTION MANUAL
MAINTENANCE

11 - 1997

SEIKI *Hitachi Seiki Co., Ltd.*

CONTENTS

SEIKI-SEICOS Σ 10/16/18/21

INSTRUCTION MANUAL MAINTENANCE

MAINTENANCE

I - I SEICOS Σ 10 UNIT	1 - 2
1. OVERVIEW	1 - 3
2. FUNCTIONS AND HANDLING OF CONTROL UNITS	1 - 7
3. TROUBLESHOOTING	1 - 24
4. POWER-ON ADJUSTMENT	1 - 25
5. DAILY MAINTENANCE AND INSPECTION	1 - 28
I - II SEICOS Σ 16/18/21 UNIT	1 - 31
1. OVERVIEW	1 - 32
2. PCB CONNECTORS AND CARD CONFIGURATION	1 - 36
3. TROUBLESHOOTING	1 - 49
4. POWER-ON ADJUSTMENT	1 - 50
5. DAILY MAINTENANCE AND INSPECTION	1 - 53
I - III RS-232C INTERFACE SPECIFICATION	1 - 59
II . ALARMS LIST	2 - 1
Alarms Related to Program and Operation (Alarm No. 100 to No. 799) ...	2 - 2
(Alarm No. F000 to No. F299) ...	2 - 41
(Alarm No. 5000 to No. 5999) ...	2 - 43
Alarms Related to Absolute Pulse Coder(APC)	
(Alarm No. F300 to No. F309)	2 - 46
Alarms Related to Serial Pulse Coder(SPC)	
(Alarm No. F350 to No. F351)	2 - 48
Alarms Related to Servo (Alarm No. F400 to No. F421)	2 - 52
Alarms Related to Over Travel (Alarm No. F500 to No. F511)	2 - 63
Alarms Related to Overheat (Alarm No. F700 to No. F702)	2 - 65
Alarms Related to Direct Tap (Alarm No. F740 to No. F742)	2 - 66
Alarms Related to Serial Spindle (Alarm No. F749 to No. F774)	2 - 67
System Alarms (Alarm No. 900 to No. 999)	2 - 69

III . PARAMETERS	3 - 1
1. DISPLAY, SETTING, AND OUTPUT OF PARAMETERS	3 - 2
2. DESCRIPTION OF PARAMETERS	3 - 4
2.1 Parameters Related to Communications(RS-232C)(No. 0100 onward)...	3 - 7
2.2 Parameters Related to Axis Control/Input Increment (No. 1000 onward) ...	3 - 16
2.3 Parameters Related to Coordinate System (No. 1200 onward)	3 - 25
2.4 Parameters Related to Stroke Limit (No. 1300 onward)	3 - 31
2.5 Parameters Related to Chuck Tail Stock Barrier (No. 1330 onward) ...	3 - 35
2.6 Parameters Related to Feed Rate (No. 1400 onward)	3 - 39
2.7 Parameters Related to Acceleration/Deceleration Control (No. 1600 onward) ...	3 - 47
2.8 Parameters Related to Servo (No. 1800 onward)	3 - 66
2.9 Parameters Related to DI/DO (No. 3000 onward)	3 - 88
2.10 Parameters Related to CRT/MID, Display, and Editing (No. 3100 onward) ...	3 - 92
2.11 Parameters Related to Program (No. 3400 onward)	3 - 100
2.12 Parameters Related to Pitch Error Compensation (No. 3600 onward) ...	3 - 116
2.13 Parameters Related to Spindle Control (No. 3700 onward)	3 - 120
2.14 Parameters Related to Tool Offset (No. 5000 onward)	3 - 159
2.15 Parameters Related to Canned Cycle (No. 5100 onward)	3 - 166
2.16 Parameters Related to Direct Tap (No. 5200 onward)	3 - 183
2.17 Parameters Related to Custom Macro (No. 6000 onward)	3 - 193
2.18 Parameters Related to Skip Function (No. 6200 onward)	3 - 200
2.19 Parameters Related to Measurement(W-setter, Safety Guard, Q-setter, Etc.) (No. 6240 onward)	3 - 203
2.20 Parameters Related to Graphic Display (No. 6500 onward)	3 - 216
2.21 Parameters Related to Manual Handle Feed/ Manual Handle Interrupt (No. 7100 onward)	3 - 222
2.22 Parameters Related to Polygonal Machining (No. 7600 onward)	3 - 225
2.23 Parameters Related to Cutting Monitoring (No. 8000 onward)	3 - 229
2.24 Parameters Related to High-speed, High-accuracy Profile Control by RISC (No. 8400 onward)	3 - 238
2.25 Others Parameters (No. 8650)	3 - 244
2.26 Parameters Related to Maintenance (No. 8900)	3 - 265

IV. DIAGNOSE	4 - 1
1. DIAGNOSE SCREEN DISPLAY	4 - 2
1.1 Input/Output Signals	4 - 3
(1) G-contact	4 - 4
(2) RG-contact	4 - 22
(3) F-contact	4 - 31
(4) RF-contact	4 - 49
(5) X-contact	4 - 59
 [APPENDIX] BOOT SYSTEM	 A - 1
1. OVERVIEW	A - 2
1.1 Starting up the BOOT SYSTEM	A - 3
1.2 System File and User File	A - 3
2. SCREEN CONFIGURATION AND OPERATION METHODS	A - 4
2.1 SYSTEM DATA LOADING Screen	A - 5
2.2 SYSTEM DATA CHECK Screen	A - 7
2.3 SYSTEM DATA DELETE Screen	A - 8
2.4 SYSTEM DATA SAVE Screen	A - 9
2.5 SRAM DATA BACKUP Screen	A - 11
2.6 MEMORY CARD FILE DELETE Screen	A - 14
2.7 MEMORY CARD FORMAT Screen	A - 14
2.8 LOAD BASIC SYSTEM	A - 15
3. ERROR MESSAGES AND REMEDIES LIST	A - 17