

# **SEIKI-SEICOS LII**

## **MAINTENANCE MANUAL**

1987 - 6

# **HITACHI SEIKI**

## CONTENTS

|                                                                         |        |
|-------------------------------------------------------------------------|--------|
| 1. SEICOS LII BLOCK DIAGRAM .....                                       | 1 - 1  |
| 2. MASTER PRINTED CIRCUIT BOARD .....                                   | 2 - 1  |
| 2-1 Check Pin .....                                                     | 2 - 2  |
| 2-2 Short Pin .....                                                     | 2 - 2  |
| 2-3 LED .....                                                           | 2 - 3  |
| 2-4 General Purpose Dipping Switch .....                                | 2 - 3  |
| 2-5 Power Connector .....                                               | 2 - 4  |
| 3. SERVO INTERFACE BOARD .....                                          | 3 - 1  |
| 3-1 Setting Volume .....                                                | 3 - 2  |
| 3-2 Gain Adjustment .....                                               | 3 - 2  |
| 3-3 Check Pin .....                                                     | 3 - 3  |
| 3-4 Setting Pin .....                                                   | 3 - 4  |
| 4. SERVO AMPLIFIER .....                                                | 4 - 1  |
| 4-1 Red LED Operation .....                                             | 4 - 1  |
| 4-2 Green LED Operation .....                                           | 4 - 2  |
| 4-3 List of Check Terminal .....                                        | 4 - 3  |
| 4-4 List of Adjusting Volume .....                                      | 4 - 4  |
| 4-5 List of Jumper Clip .....                                           | 4 - 5  |
| 4-7 Maintenance .....                                                   | 4 - 7  |
| 4-7-1 Maintenance of the servo amplifier .....                          | 4 - 7  |
| 4-7-2 Movement and procedure of protective function .....               | 4 - 7  |
| 4-7-3 Countermeasure for alarm output .....                             | 4 - 10 |
| 4-7-4 Cause of error by deffective adjustment<br>and its disposal ..... | 4 - 12 |
| 4-7-5 Diagnosis of failure and countermeasure .....                     | 4 - 13 |
| 5. CRT .....                                                            | 5 - 1  |
| 5-1 Appearance .....                                                    | 5 - 1  |
| 5-2 Adjusting Part .....                                                | 5 - 2  |
| 5-3 Diagnosis of Failure .....                                          | 5 - 2  |
| 6. SERIAL INTERFACE .....                                               | 6 - 1  |
| 6-1 Connection with PPR .....                                           | 6 - 1  |
| 6-2 Description on NC Side Signal .....                                 | 6 - 2  |
| 6-3 Method of Transmission .....                                        | 6 - 3  |

|                                                          |       |
|----------------------------------------------------------|-------|
| 7. TAPE READER .....                                     | 7 - 1 |
| 7-1 Outline .....                                        | 7 - 1 |
| 7-2 Specifications .....                                 | 7 - 1 |
| 8. ADJUSTMENT FOR TURNING ON THE POWER .....             | 8 - 1 |
| 8-1 Procedure up to the Start-up of the System .....     | 8 - 1 |
| 8-2 Zero Return .....                                    | 8 - 5 |
| 8-2-1 Manual reference point return .....                | 8 - 5 |
| 8-2-2 Initial G28 (Auto return to reference point) ..... | 8 - 6 |
| 9. TROUBLESHOOT AND ITS DISPOSAL .....                   | 9 - 1 |
| 9-1 Manual Continuous Feed is Disabled .....             | 9 - 1 |
| 9-2 Automatic Operation Disabled .....                   | 9 - 3 |
| 9-3 Feed by Manual Pulse Generator Disabled .....        | 9 - 4 |
| 10. DAILY MAINTENANCE .....                              | 10- 1 |