

***START SECTION***

|       |          |  |  |  |  |  |
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| REV.0 | Jan.2000 |  |  |  |  |  |
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**All Maintenance Procedures Start from Here!**

## 1 Precautions

- All maintenance operations to be performed on this subsystem are controlled through the SVP. When taking maintenance actions, carefully read this maintenance manual to avoid operation mistakes.
- The subsystem is designed so that troubles are isolated using the action code (ACC). If no ACC is presented, isolate the trouble based on TROUBLE SHOOTING SECTION.
- This subsystem supports new technologies such as RAID and live part plugging/unplugging. The service personnel should read THEORY OF OPERATION SECTION and understand its contents.

### 1.1 How to Use This Maintenance Manual

When servicing the subsystem by using this manual, select the item to be checked from the START ENTRY TABLE in START SECTION and follow the instructions given in the corresponding test procedure.

(Note)

Each SVP screen on this maintenance manual is a sample, and it may not be the same as the actual screen.

## 2 Start Entry Table

Select the test item to be executed on this subsystem and follow the instructions given on the indicated pages.

|                           | Test Item                                                                                         | Go To                                                         |
|---------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>A. Error Analysis</b>  |                                                                                                   |                                                               |
| A-1                       | Analyzing errors with ACC                                                                         | <a href="#">TRBL03-10</a>                                     |
| A-2                       | Analyzing errors without ACC                                                                      | <a href="#">TRBL03-20</a>                                     |
| A-3                       | Analyzing electric system errors (alarm, breaker trip, power-on failure, etc.)                    | <a href="#">TRBL03-70</a><br><a href="#">TRBL03-180 - 240</a> |
| A-4                       | Analyzing PC (SVP) errors                                                                         | <a href="#">TRBL03-140</a>                                    |
| A-5                       | Analyzing SVP Messages                                                                            | <a href="#">SVPMSG01-10</a>                                   |
| A-6                       | ACC analysis in SSB                                                                               | <a href="#">ACC01-10</a>                                      |
| A-7                       | PIN track recovery                                                                                | <a href="#">TRBL04-10</a>                                     |
| A-8                       | Recovery procedure for abnormal correction copy termination                                       | <a href="#">TRBL04-10</a>                                     |
| A-9                       | Recovery procedure for Common Fibre Loop Error                                                    | <a href="#">TRBL05-20</a>                                     |
| A-10                      | Recovery procedure for LAN Error                                                                  | <a href="#">TRBL05-60</a>                                     |
| A-11                      | Recovery procedure for the Replacement of CHA/DKA                                                 | <a href="#">TRBL05-100</a>                                    |
| A-12                      | Recovery procedure for micro-program replacement failure                                          | <a href="#">MICRO-FC07-10</a>                                 |
| A-13                      | Recovery procedure for cache replacement failure                                                  | <a href="#">TRBL05-140</a>                                    |
| A-14                      | Recovery procedure for cache double-side failure                                                  | <a href="#">TRBL05-150</a>                                    |
| A-15                      | Message “Internal Subsystem is under maintenance...” was displayed during maintenance by the SVP. | <a href="#">TRBL05-160</a>                                    |
| A-16                      | Recovery procedure for drive restoration failure                                                  | <a href="#">TRBL05-170</a>                                    |
| A-17                      | Recovery procedure for installing failure                                                         | <a href="#">INST02-380</a>                                    |
| A-18                      | DIAG Trouble shooting                                                                             | <a href="#">DIAG05-10</a>                                     |
| <b>B. Status Display</b>  |                                                                                                   |                                                               |
| B-1                       | Displaying processor and path block status and drive copy status                                  | <a href="#">SVP03-10</a>                                      |
| <b>C. Installation</b>    |                                                                                                   |                                                               |
| C-0                       | Subsystem Configuration Outline                                                                   | <a href="#">INST01-10</a>                                     |
| C-1                       | New Installation Procedure General Flow                                                           | <a href="#">INST02-10</a>                                     |
| C-2                       | Non-Disruptive Installation Procedure General Flow                                                | <a href="#">INST02-80</a>                                     |
| C-3                       | Non-Disruptive De-Installation Procedure General Flow                                             | <a href="#">INST02-140</a>                                    |
| C-4                       | Disruptive Installation Procedure General Flow                                                    | <a href="#">INST02-200</a>                                    |
| C-5                       | Disruptive De-Installation Procedure General Flow                                                 | <a href="#">INST02-250</a>                                    |
| <b>D. Microprogram FC</b> |                                                                                                   |                                                               |
| D-1                       | Performing micro-program FC (off-line)                                                            | <a href="#">MICRO-FC03-10</a>                                 |
| D-2                       | Performing micro-program FC (on-line)                                                             | <a href="#">MICRO-FC04-10</a>                                 |
| D-3                       | Performing MP Install                                                                             | <a href="#">MICRO-FC05-10</a>                                 |
| D-4                       | Performing configuration exchange                                                                 | <a href="#">MICRO-FC08-10</a>                                 |

|                                  | Test Item                                                                | Go To                       |
|----------------------------------|--------------------------------------------------------------------------|-----------------------------|
| <b>E. Part Replacement</b>       |                                                                          |                             |
| E-1                              | Replacing parts                                                          | <a href="#">REP00-10</a>    |
| E-2                              | Periodic replacing                                                       | <a href="#">PERIOD04-10</a> |
| E-3                              | Periodic checking                                                        | <a href="#">PERIOD01-10</a> |
| <b>F. SVP Panel Manipulation</b> |                                                                          |                             |
| F-1                              | Getting SVP panel manipulation information                               | <a href="#">SVP01-10</a>    |
| F-2                              | Checking log information                                                 | <a href="#">SVP02-30</a>    |
| F-3                              | Log delete                                                               | <a href="#">SVP02-170</a>   |
| F-4                              | Displaying the ratio of the processor, cache and write pending data etc. | <a href="#">SVP02-220</a>   |
| F-5                              | Checking On-line Read Margin (ORM) information                           | <a href="#">SVP02-270</a>   |
| F-6                              | Setting SIM report level                                                 | <a href="#">SVP02-390</a>   |
| F-7                              | Management of Drive Threshold Values                                     | <a href="#">SVP02-410</a>   |
| F-8                              | Copying the Dump, Log files to a floppy disk                             | <a href="#">SVP02-470</a>   |
| F-9                              | SIM Log complete                                                         | <a href="#">SVP02-510</a>   |
| F-10                             | Performing Manual Dump                                                   | <a href="#">SVP02-530</a>   |
| F-11                             | Performing Logical Device Maintenance                                    | <a href="#">SVP02-600</a>   |
| F-12                             | Display the Pinned Track                                                 | <a href="#">SVP02-820</a>   |
| F-13                             | System Option                                                            | <a href="#">SVP02-900</a>   |
| <b>G. Diagnostics</b>            |                                                                          |                             |
| G-1                              | Performing CUDG4/LCDG4                                                   | <a href="#">DIAG04-10</a>   |
| G-2                              | Performing DKU INLINE                                                    | <a href="#">DIAG04-100</a>  |
| <b>H. Others</b>                 |                                                                          |                             |
| H-1                              | Knowing outline of this subsystem                                        | <a href="#">THEORY01-10</a> |