# *DKC REPLACEMENT PROCEDURE SECTION*

## Contents

## DKC REPLACEMENT

# 1 DKC Change

## 1.1 Abstract

Purpose of DKC change is to enable user's LDEV/PDEV resources to be continuously used when the DKC is exchanged.

## 1.2 Measures to attain the purpose

Information to be handed over is saved on FD by the SVP of the former subsystem and installed by the SVP of the new subsystem.
NOTE : DKC replacement procedure needs two blank FDs.

## 1.3 Old subsystem configuration restrictions

| No. | Condition/restriction | Detail | Restriction guard |
|---|---|---|---|
| 1 | STATUS of subsystem | • The switching is allowed even if a failed part or a PIN exist.<br>• The switching is not allowed if a Correction copy or Drive copy is running.<br>• The switching is not allowed if a Verify function is running.<br>• Micro-code version must be changed to supported version. | If the restriction is violated, the FD is not supported. |
| 2 | HDD type | • There is no restriction. | |
| 3 | RAID level | • There is no restriction. | |
| 4 | Cache configuration | • There is no restriction. | |
| 5 | Emulation type | • There is no restriction. | |

## 1.4 New subsystem configuration restrictions

| No | Condition/restriction | Detail | Restriction guard |
|---|---|---|---|
| 1 | A failed part or a blocked part status. | • CHA/DKA/Cache/CSW/SM, etc. must be all normal status.<br>• LDEV/PDEV/FSW, drive port can be Blocked. | If the restriction is violated, the FD is not supported. |
| 2 | Cache configuration | • Cache capacity must be the same as that of the old subsystem.<br>• Cache SIMM size and its location must be the same as those of the old subsystem. | Restriction is violated, configuration information error will occur (SSB, SIM or blocked parts). Configuration information must be checked by technical support. |
| 3 | SM configuration | • SM capacity must be the same as that of the old subsystem.<br>• SM SIMM size and its location must be the same as those of the old subsystem. | |
| 4 | Number of CHA/DKA PCBs and their locations | • Number of CHA/DKA PCBs and their locations must be the same as those of the old subsystem. | |
| 5 | Number of Channels and their locations | • Number of channels and their locations must be the same as those of the old subsystem. | |
| 6 | Number of Cache PCBs and their locations | • Number of Cache PCBs and their locations must be the same as those of the old subsystem. | |

## 1.5 Restrictions of configuration expansion

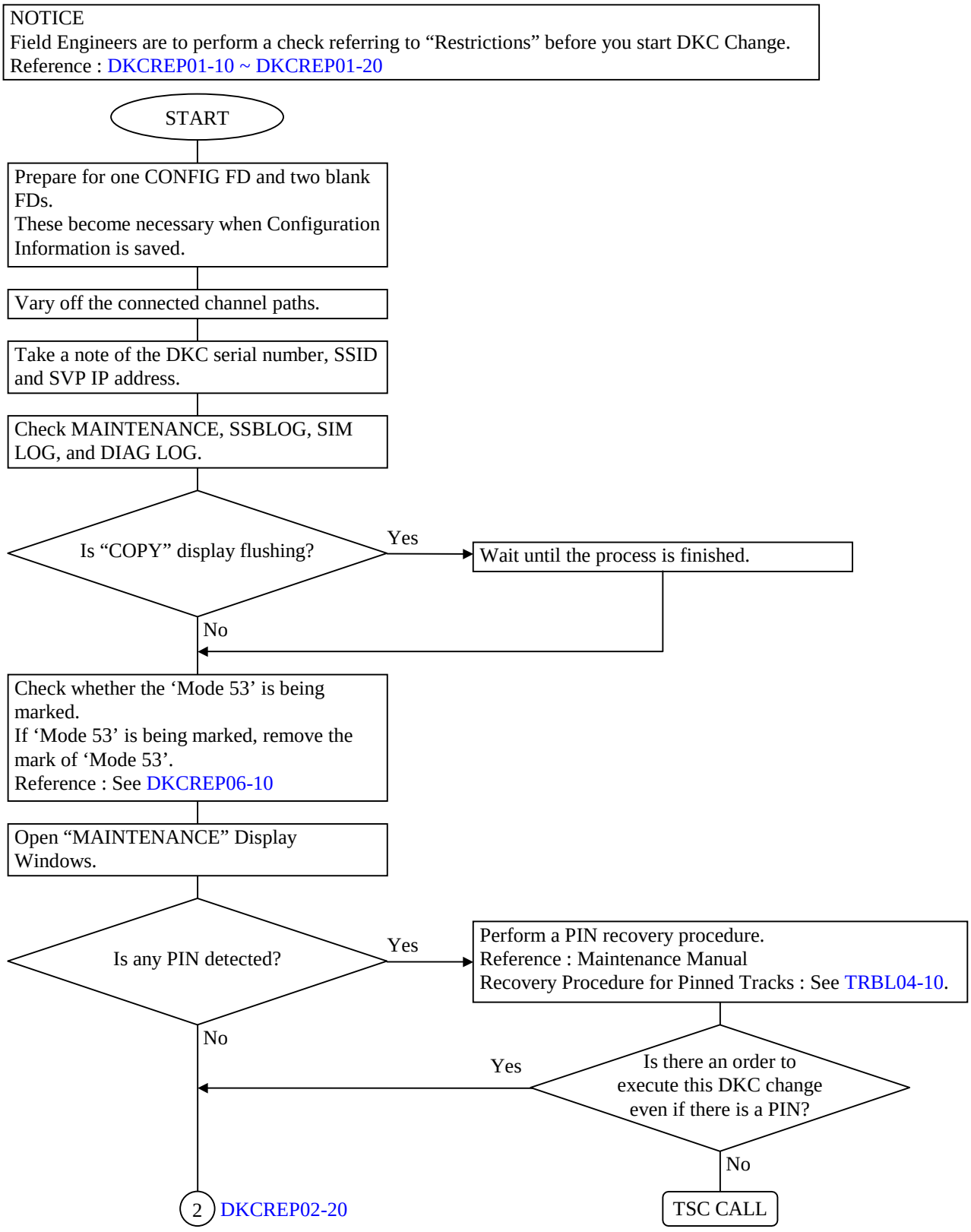
There are no restrictions.

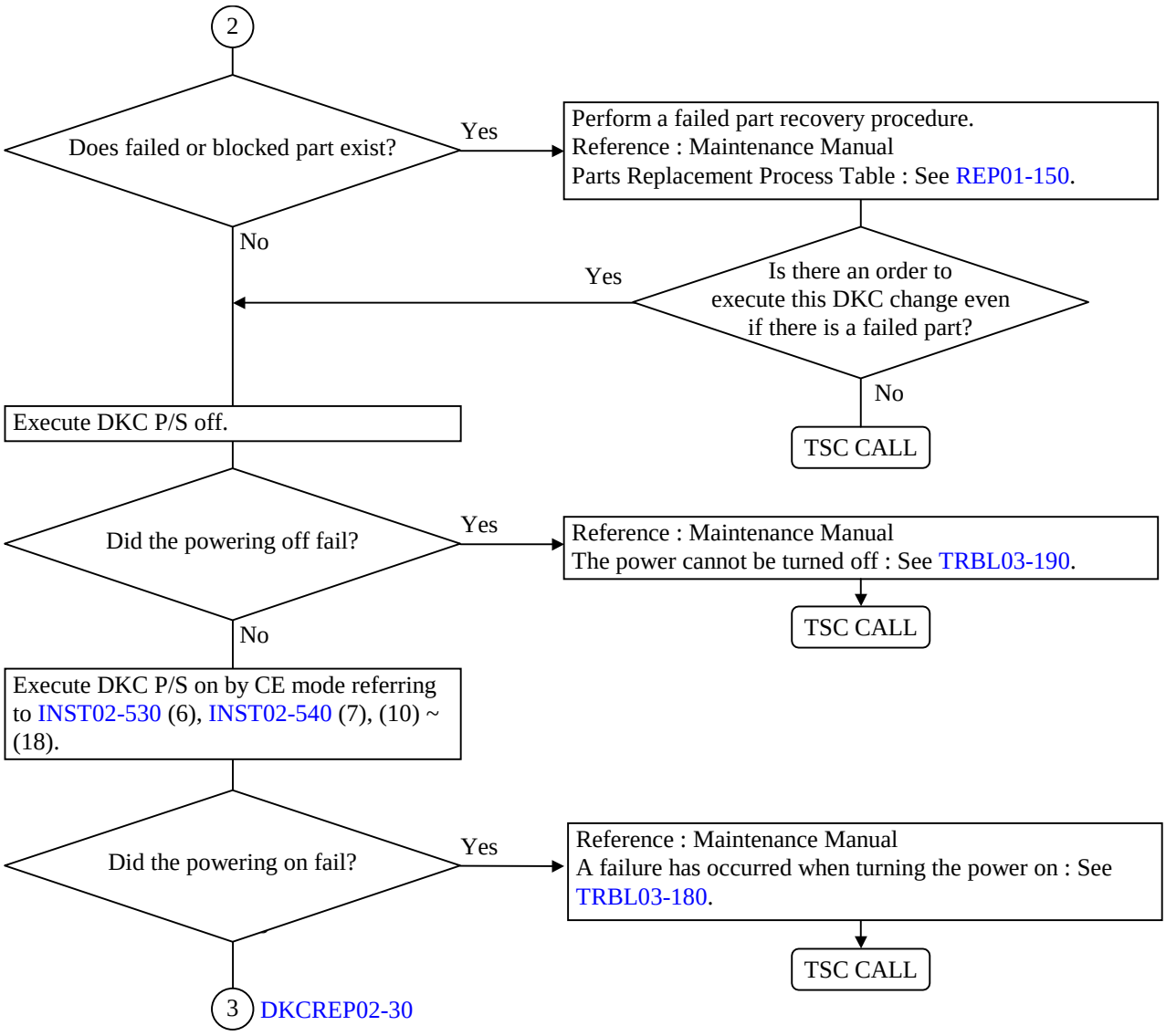
## 1.6 The kind of reported SSB and SIM (Only when a SCSI cable and an environment monitor cable don't connect it.)

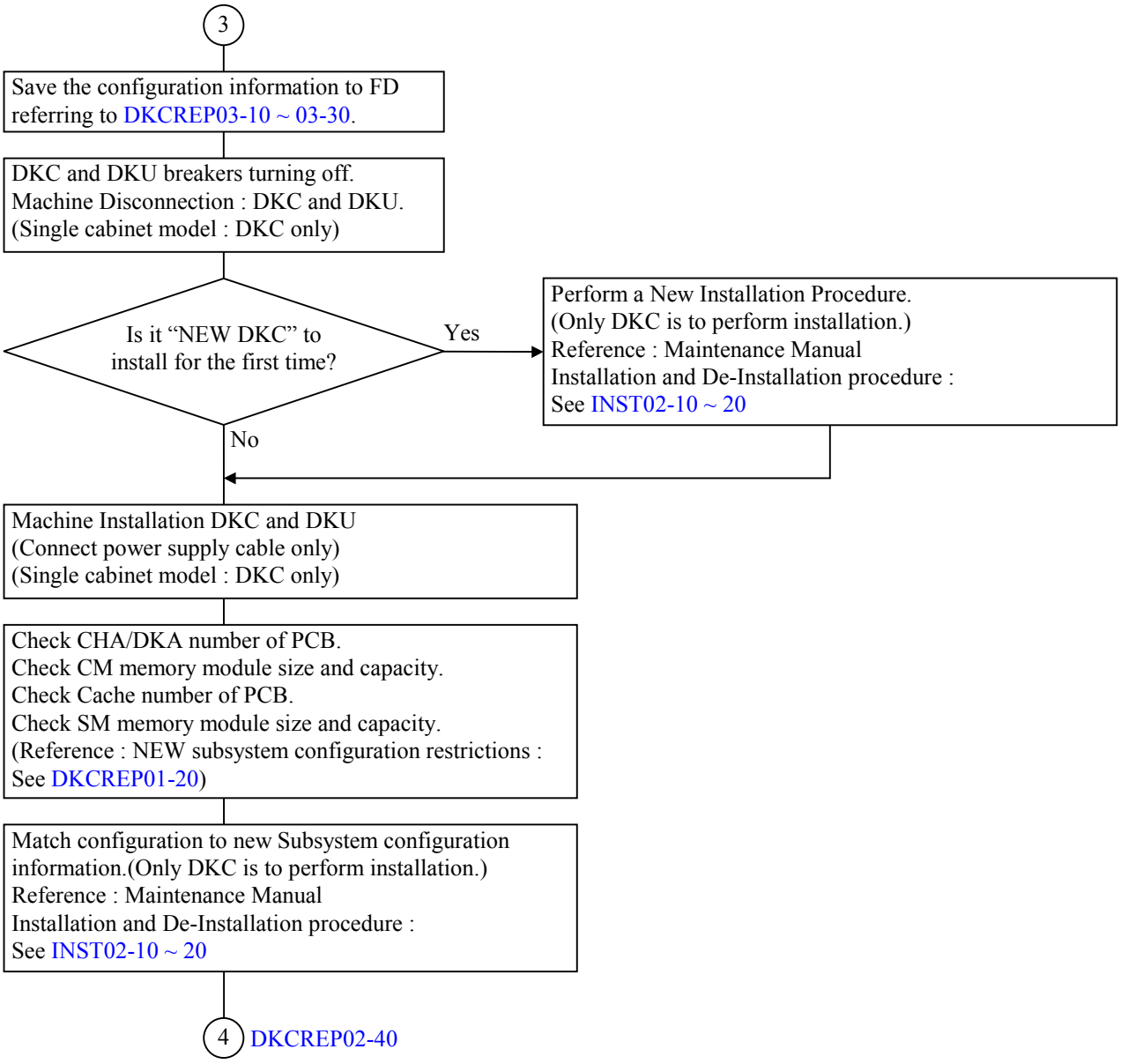
| SIM CODE | contents | Note |
|---|---|---|
| 3da0 | FSW LED bus test error. | An influence by the un-connection of FIBRE cable. |
| 7410 | SSVP error. | An influence by the unconnection of the RS232C cable. |
| 7ff2xx | Stand by SVP error. | An influence by the SVP high reliability kit. |
| ac50 | HDU power off. | An influence by the un-connection of the FIBRE cable. |
| bfxx | Environmental Error. | An influence by the un-connection of the environment monitor cable. |
| ffe7 | Shared memory is volatilized. | An influence due to breaker Off/on. |

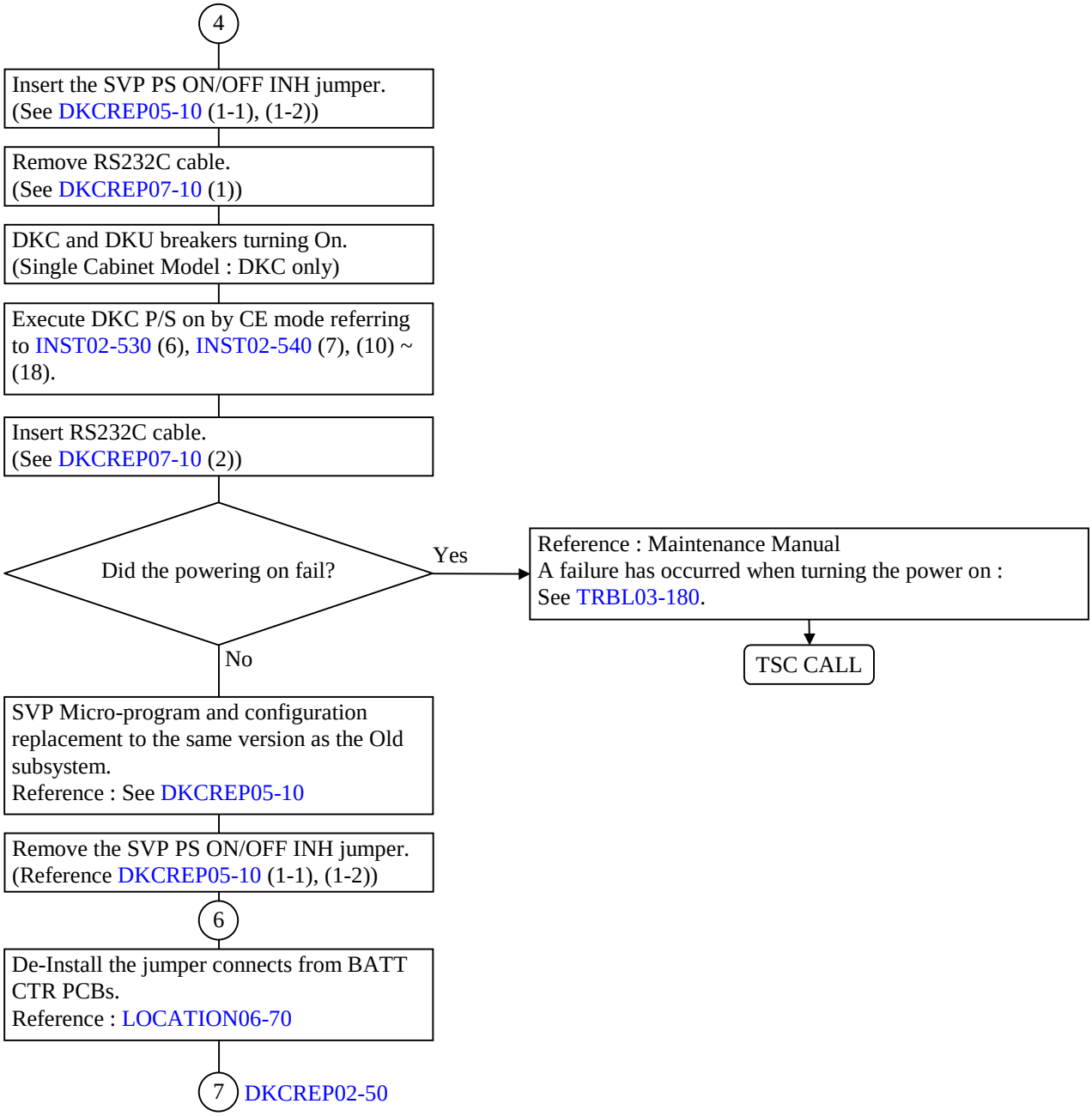
| Error Code | contents | Note |
|---|---|---|
| 001d | From FM, to SM, micro-transfer practice | At the time of the Shared Memory volatile mode. |
| 32cc | HDU power off. | An influence due to breaker Off/on. |
| 35ac | SVP-DKC communication error. | The subsystem configuration not include CHT PCB. |
| 9b3o | Request of sleep. | An influence by the un-connection of the FIBRE cable. |
| 9fo1 | After the DMP job I/O error, recovery process is stop. | |
| a040 | Maintenance process LIP or Login is time out. | |
| a47c | A SCSI Cable cutout is removed. | An influence due to breaker Off/on. |
| aec9 | The status injustice of SPC interrupts. | |
| ae57 | BUS DEVICE RESET | |
| ae5c | DRIVE LED NG. | |
| b440 | TPC initialize success. | The subsystem configuration include CHT PCB. |
| b453 | TPC blockade success. | |
| b60e | Link up by “Auto Speed = 2GB”. | |
| b60f | Link up by “Auto Speed = 1GB”. | |

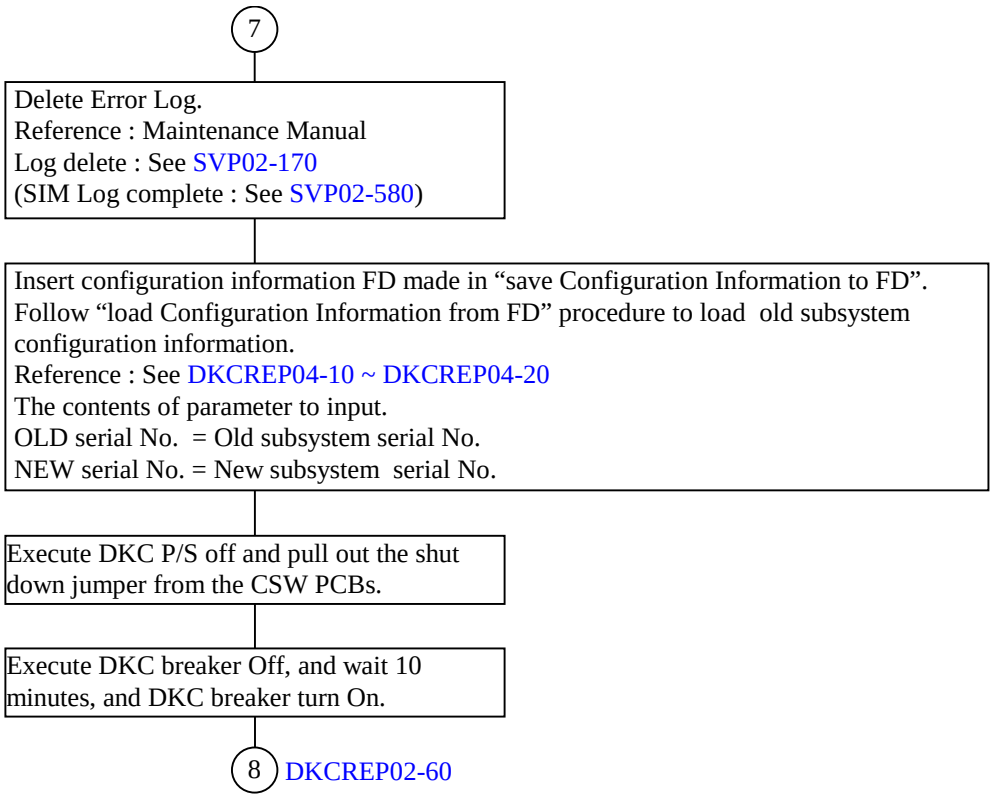
## 2 DKC Change flowchart

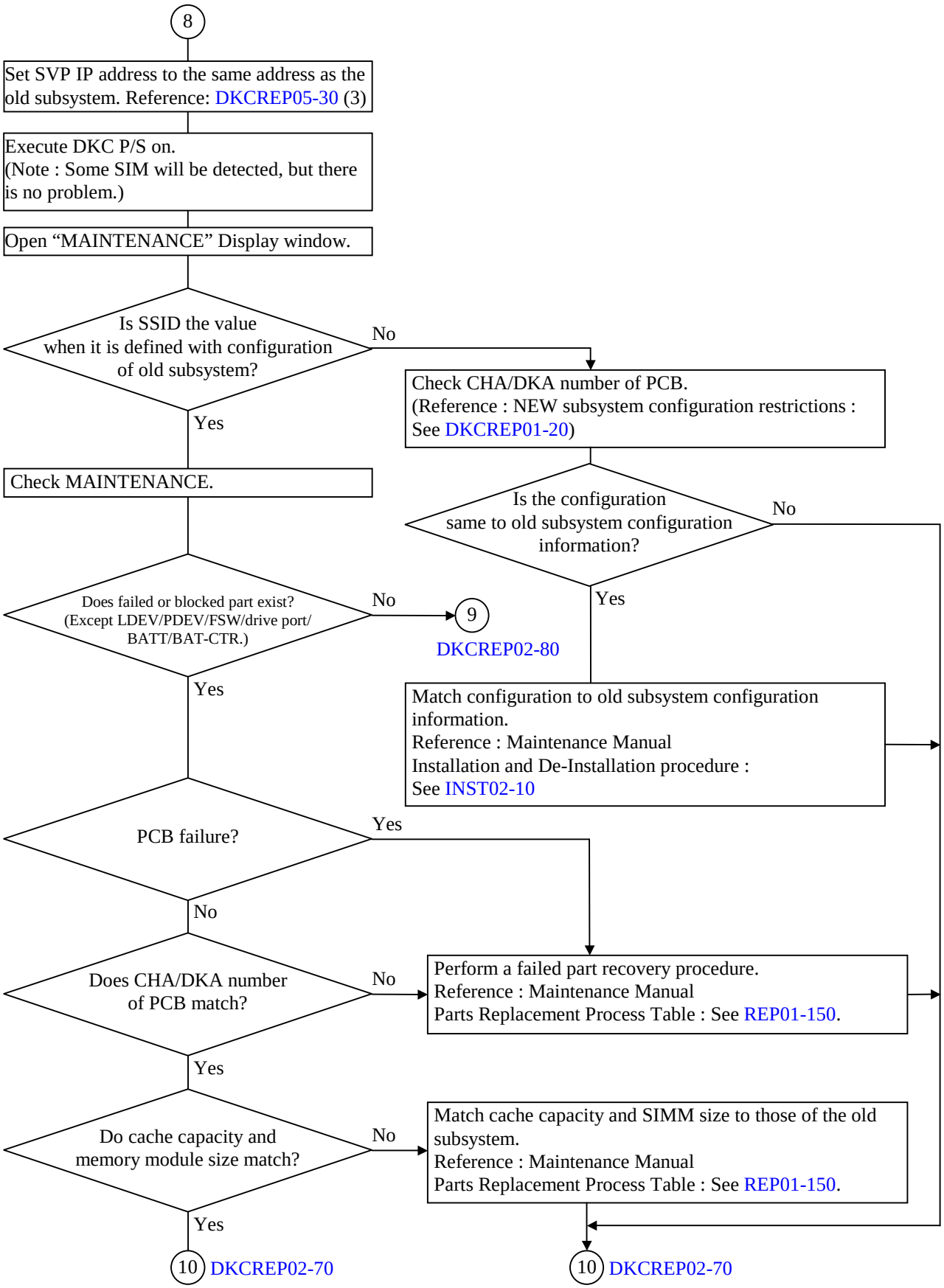


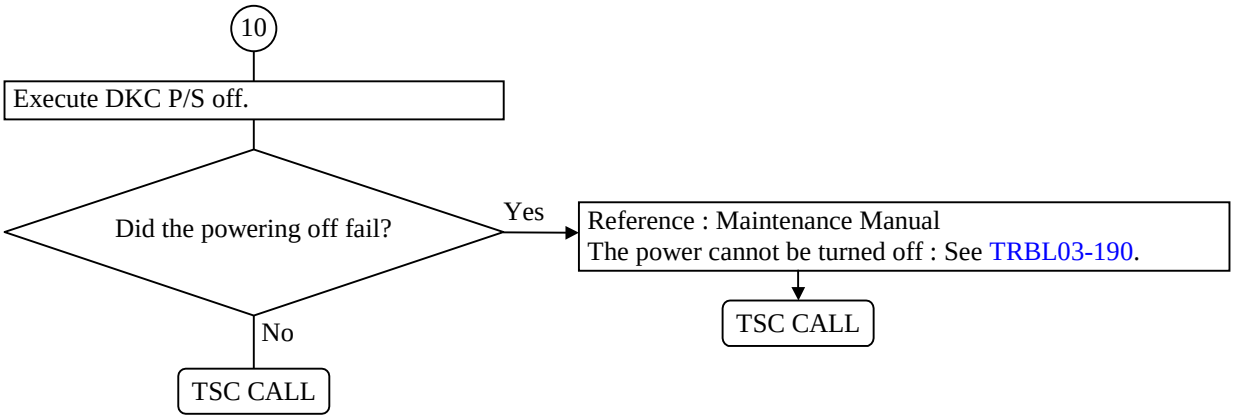


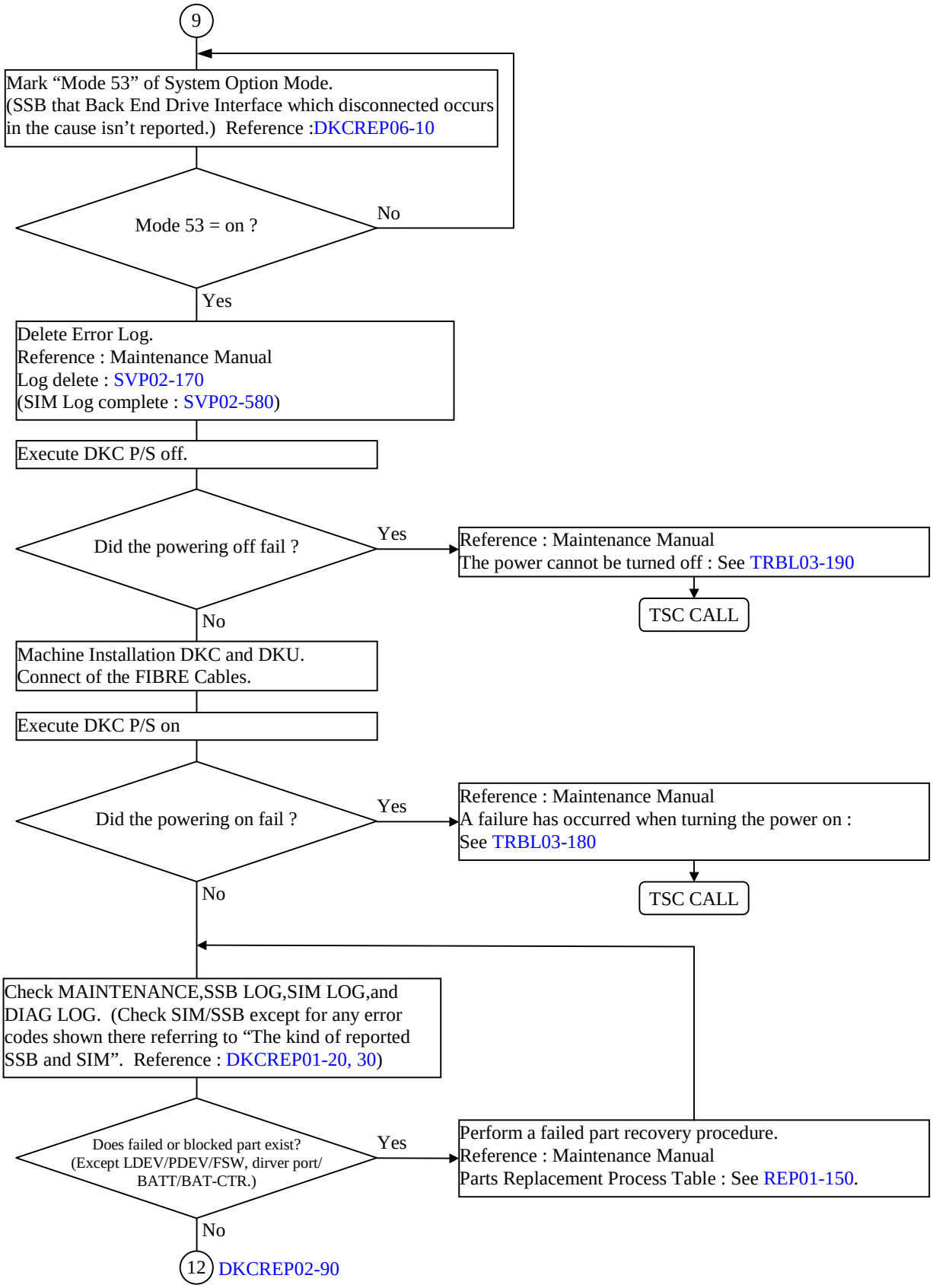


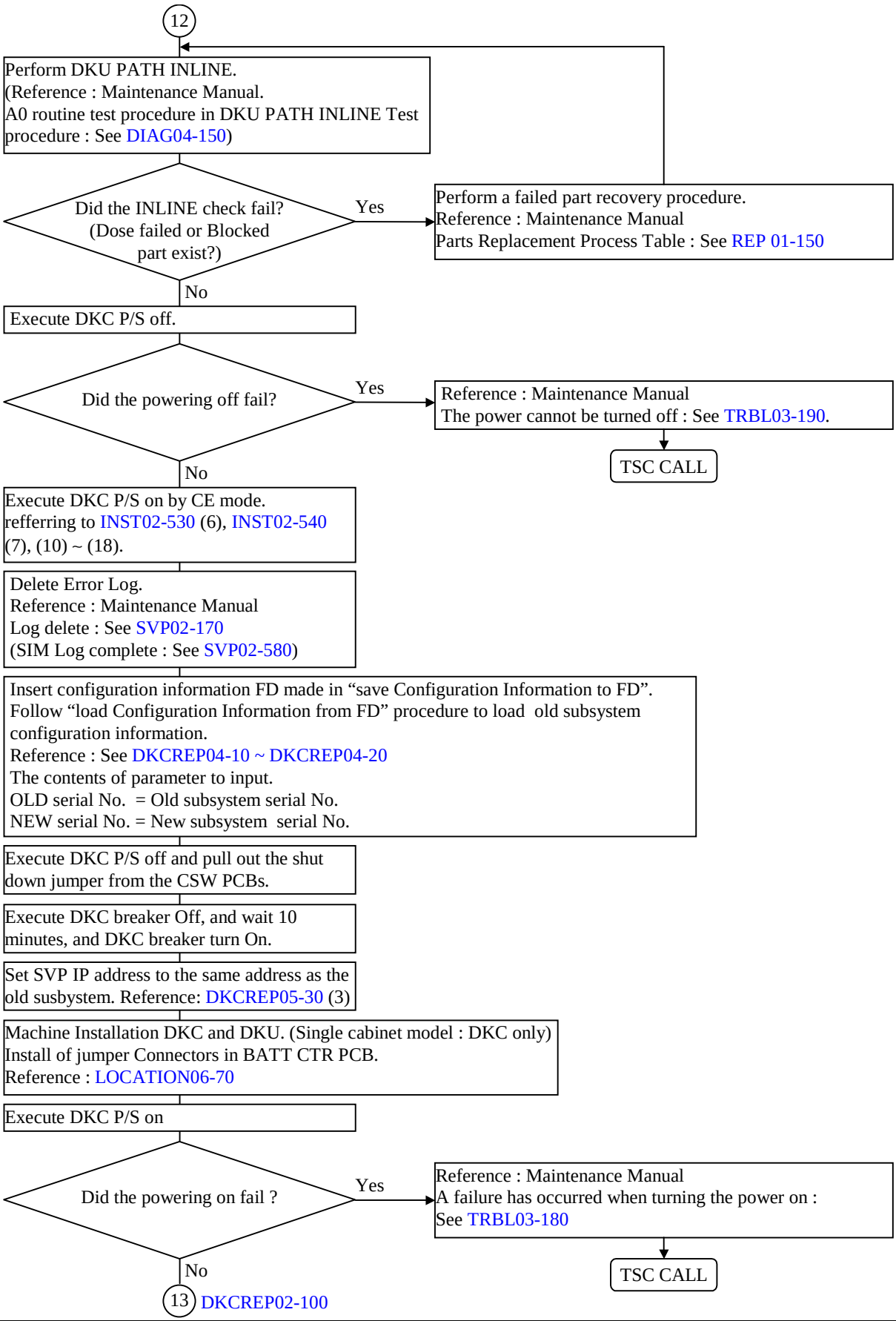


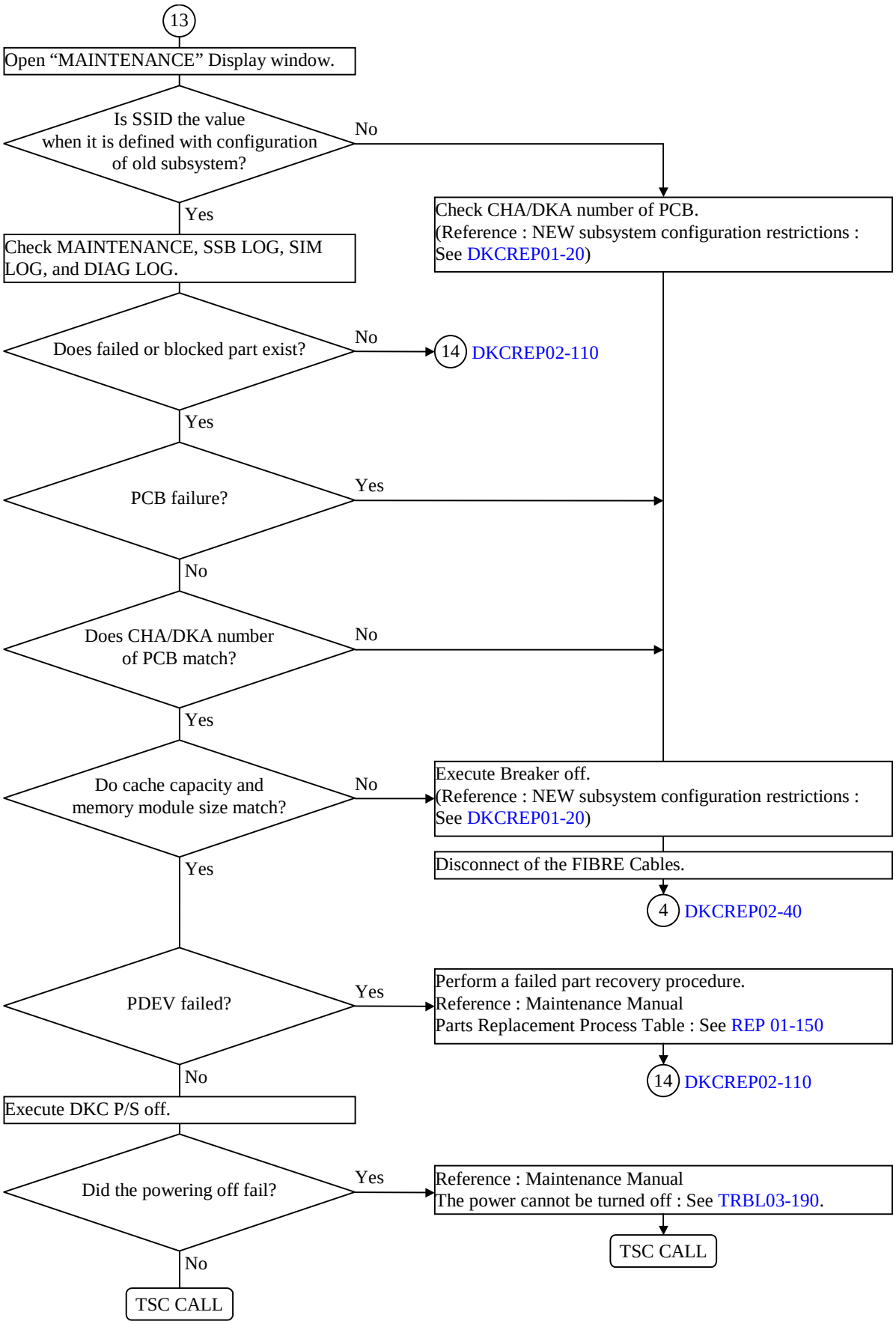


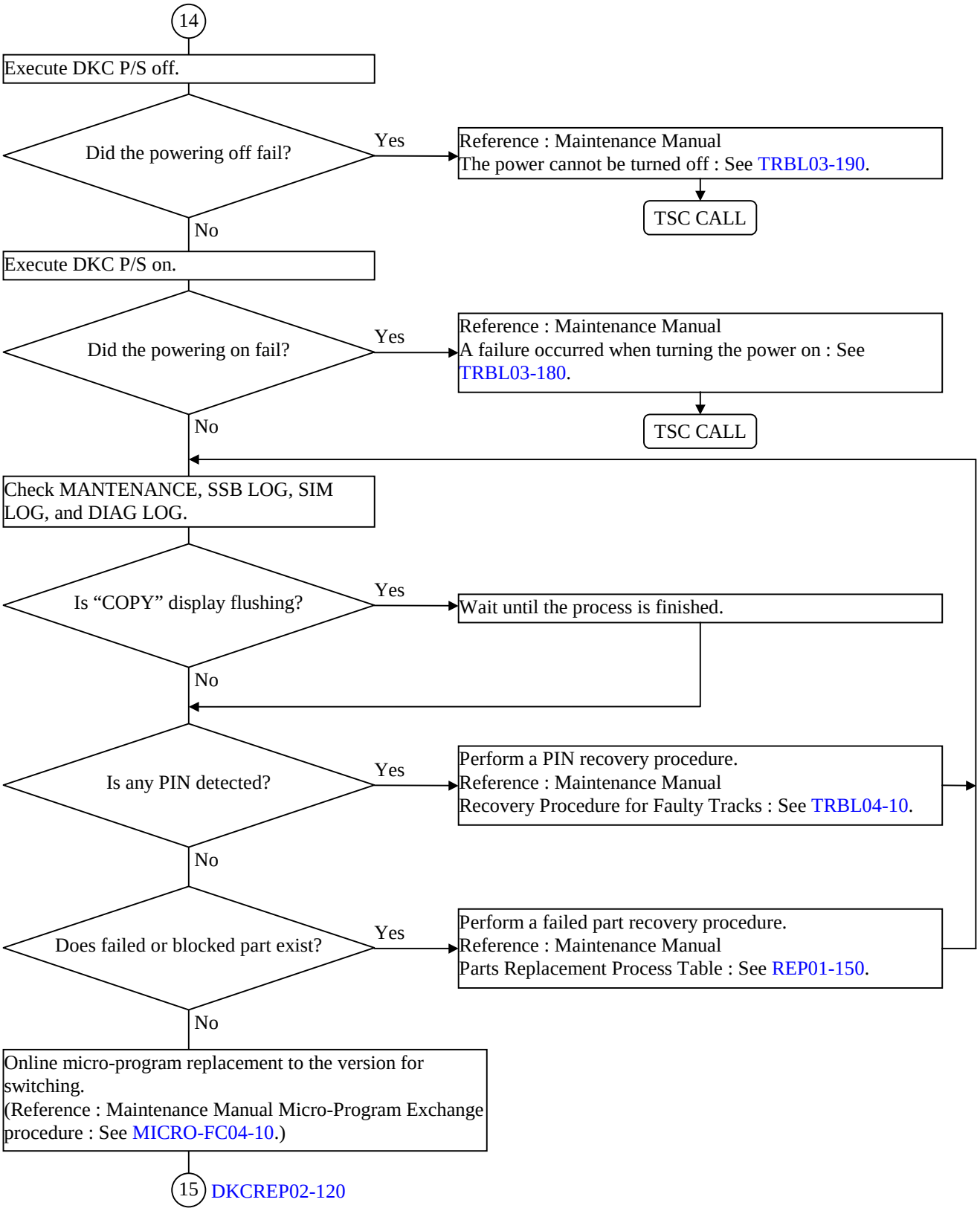


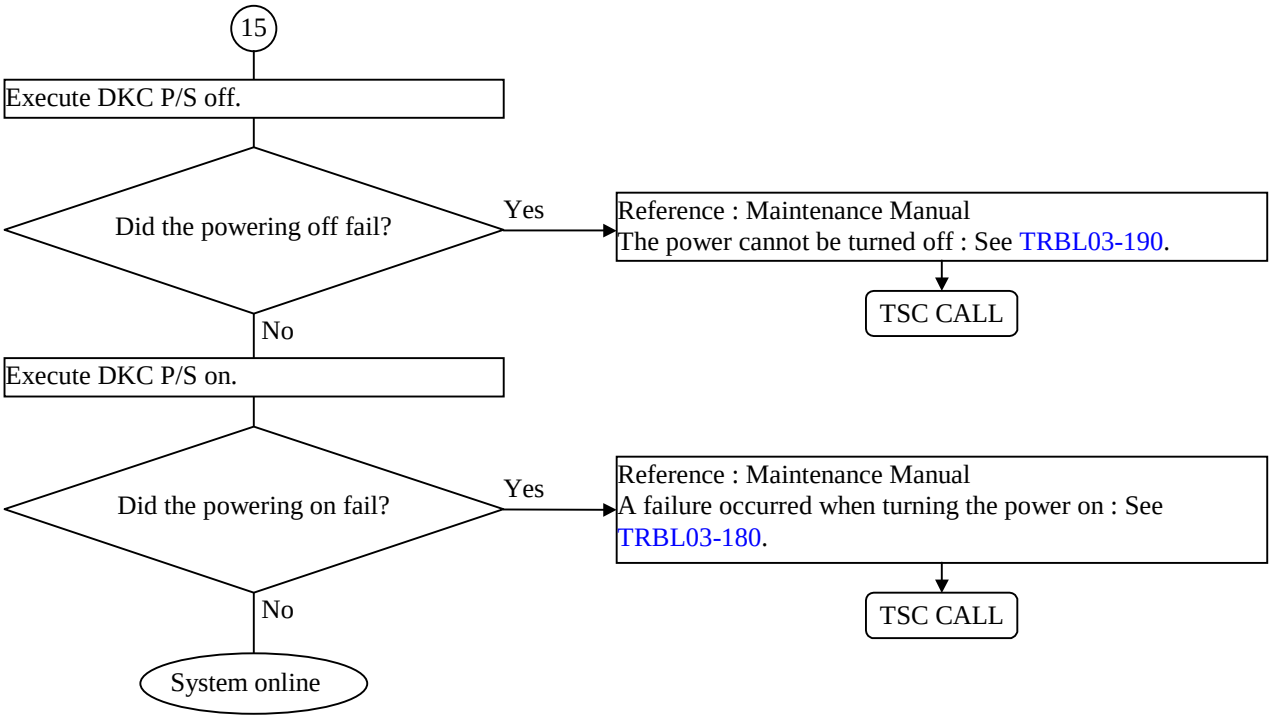








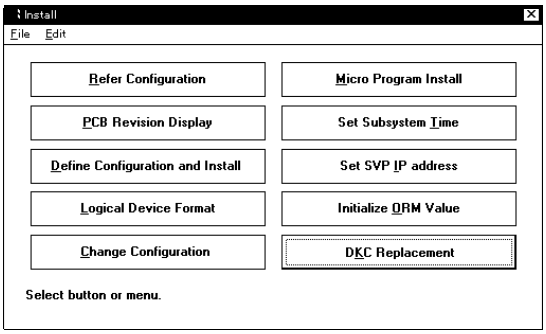




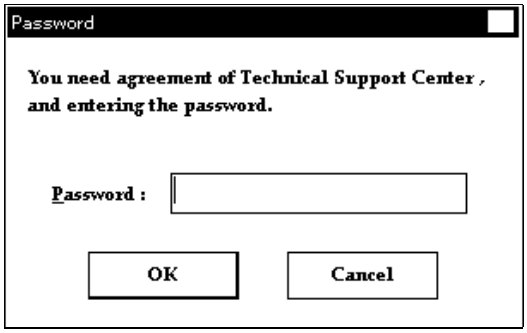
## 3 Procedure of saving configuration information to FD for DKC Change

(1) Change the mode to [Swap Mode].
- Select “Shift”+“Ctrl”+“Alt”+“P”.
- Enter the password and select (CL) [OK].
- Select (CL) [Install].

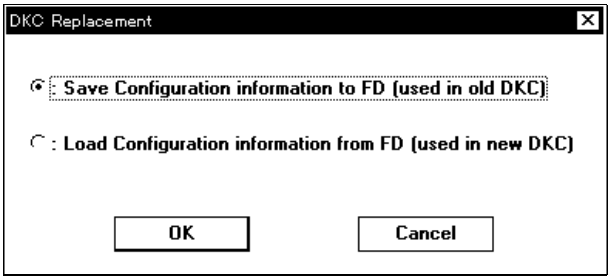
(2) <DKC REPLACEMENT>
Select (CL) [DKC REPLACEMENT].



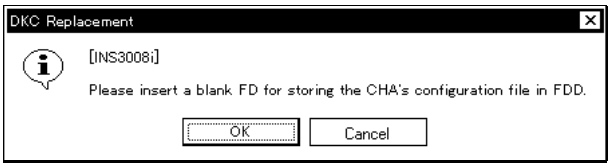

(3) Enter the password and select (CL) [OK].
Password is needed for this operation.
Please call Technical Support Center to obtain password and authorization.




(4) Select (CL) “Save Configuration information to FD (used in old DKC)” and select (CL) [OK] in the [DKC Replacement] window.



(5) Insert a blank FD for CHA in FDD.
Then select (CL) [OK].
Next, please insert a blank FD for DKA.
Then select (CL) [OK].

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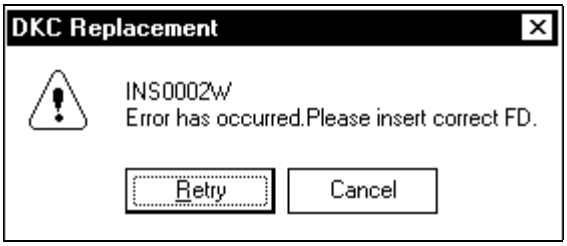
<Error case>
Insert correct FD.
Then select (CL) [Retry].

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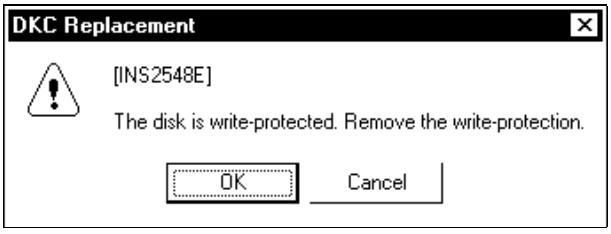
<Error case>
Remove the write-protection.
Then select (CL) [OK].

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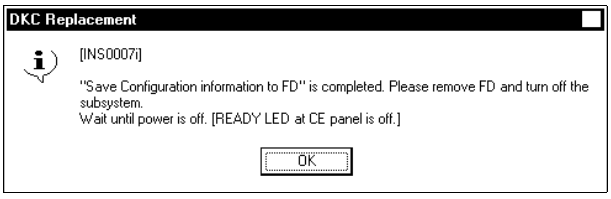
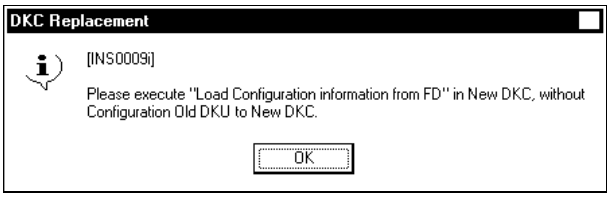
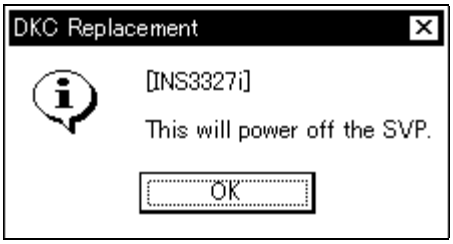
(6) Remove FD and turn off the subsystem.
Wait until power is off.
Then select (CL) [OK].



(7) Select(CL) [OK].
Note: Do not connect the old DKU to the new DKC.



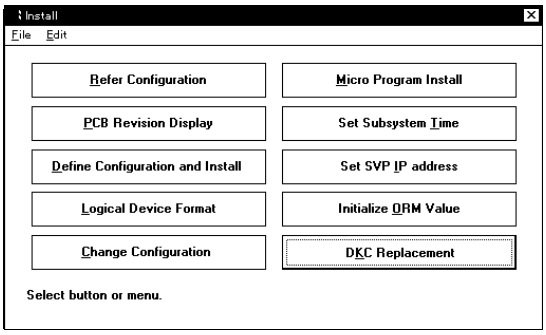

(8) Select (CL) [OK].



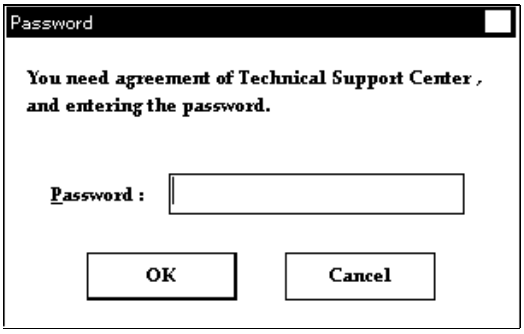
# 4 Procedure of loading Configuration information from FD (used in new DKC)

(1) Change the mode to [Swap Mode]
- Select “Shift” + “Ctrl” + “Alt” + “P”.
- Enter the password and select (CL) [OK].
- Select (CL) [Install].

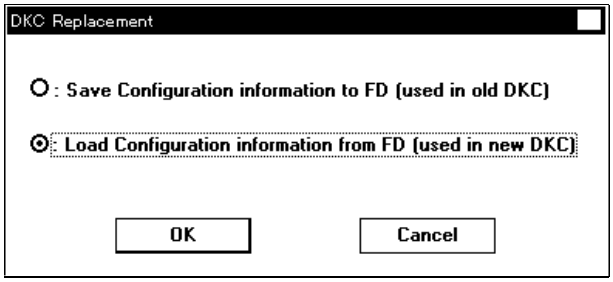
(2) <DKC REPLACEMENT>
Select (CL) [DKC REPLACEMENT].



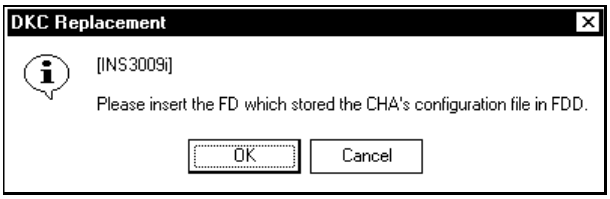

(3) Enter the password and select (CL) [OK].
Password is needed for this operation.
Please call Technical Support Center to obtain password and authorization.



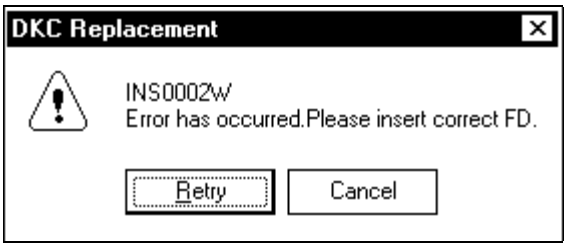

(4) Select (CL)
“Load Configuration information from FD (used in new DKC)” and select (CL) [OK] in the ‘DKC Replacement’ window.



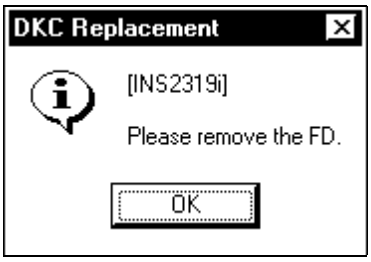
(5) Please insert the FD which stored the CHA's configuration file in FDD.
Then select (CL) [OK].
Next, please insert the FD for DKA.
Then select (CL) [OK].



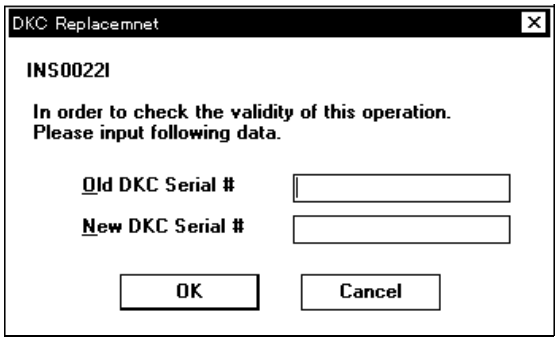

<Error case>
Please insert correct FD.
After select (CL) [Retry].



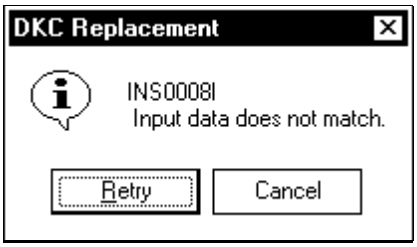

(6) Please remove the FD from FDD.
Then select (CL) [OK].



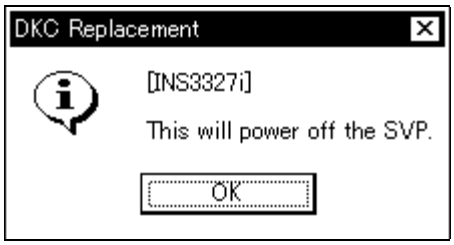

(7) Please input DKC serial#.
After select (CL) [OK].




<Error case>
Input data does not match.
Select (CL) [Retry].



(8) Select (CL) [OK].



## 5 Procedure of Micro-program replacement to SVP

(1) Insert the SVP PS ON/OFF INH jumper.

NOTE : Check the SVP PS ON/OFF INH jumper JP2 on the RS CON PCB. If the jumper is set execute this procedure from DKCREP05-10 (2).

(1-1) Open the front door and then open the DKC-PANEL.

(1-2) Insert the SVP PS ON/OFF INH jumper into the JP2 on the RS CON PCB.
(see LOCATION06-50)

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(2) Installation of Micro-program.

(2-1) Insert the CD-ROM disk into the CD-ROM drive and then wait one minute.

(2-2) Select (CL) [Start]. Select (CL) [Run...].

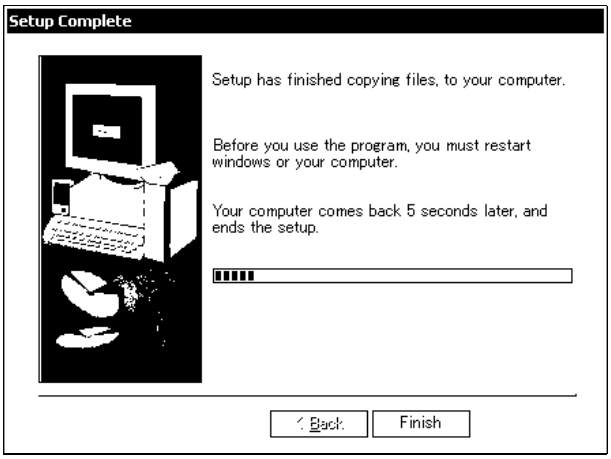
(2-3) Input “e:\setup.exe” on ‘open’ and select (CL) [OK].

(2-4) The right dialog is displayed.
Then insert the Config FD in the FDD and select (CL) [OK].


(2-5) The right dialog is displayed.
Then remove the Config FD and select (CL) [OK].


(2-6) JAVA setup is executed. Select (CL) [Yes] or [Next] in All dialogs.

(2-7) The right dialog is displayed.

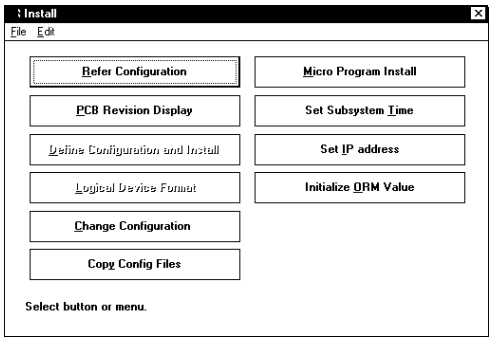



Since SVP is rebooted automatically, wait for Windows to start.

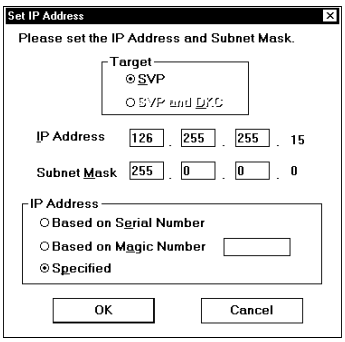
(3) Set IP address of SVP.

(3-1) Open [Install].
Select (CL) [Install] from 'SVP'.

(3-2) Select [Set Subsystem IP Address...].
Select (CL) [Set IP Address...] from 'Install'.



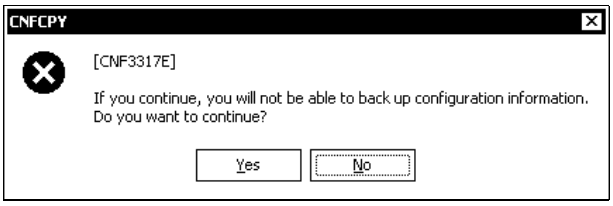

(3-3) Set IP Address.
Select (CL) [SVP] from [Target] and [Specified] from [IP Address], enter "126", "255", "255" in IP Address and enter in Subnet Mask. Select (CL) [OK].



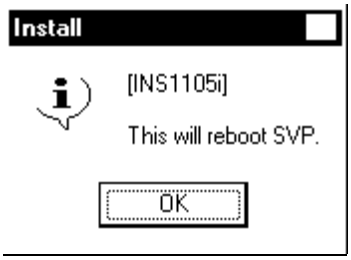

(3-4) "Please insert config FD in FDD." is displayed.
Do not insert 'CONFIG FD' in FDD, Select (CL) [OK].


(3-5) "Backup is failed Please insert correct FD." is displayed.
Select (CL) [Cancel].

(3-6) Select (CL) [Yes].



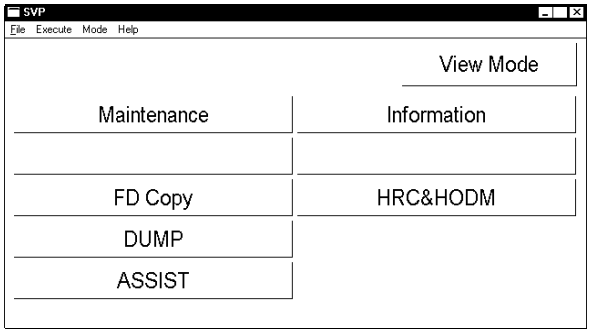

(3-7) Check SVP reboot.
Select (CL) [OK].



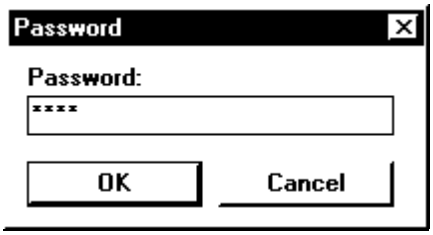

(4) SIM Complete
See SVP02-580.

# 6 Procedure of setting System Option Mode

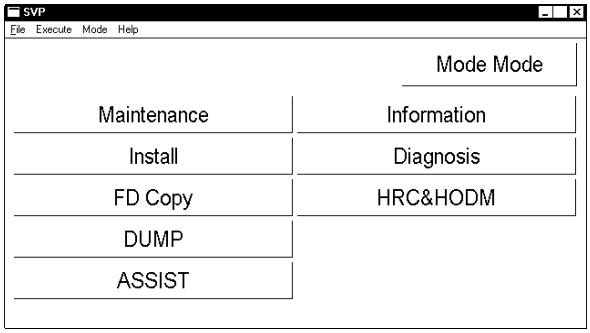
(1) Make it on the screen which shows SVP in the following.



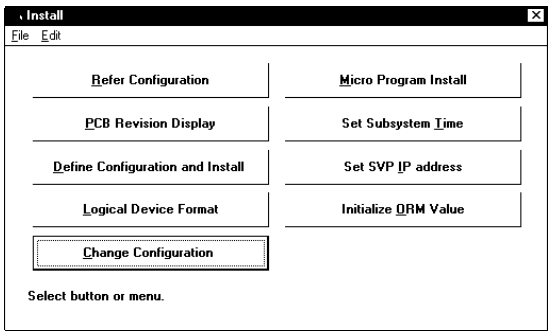

(2) Put down the following keys at one to input in the password and. Select (CL) [OK].
"[CTL]", "[Shift]" and "[M]".



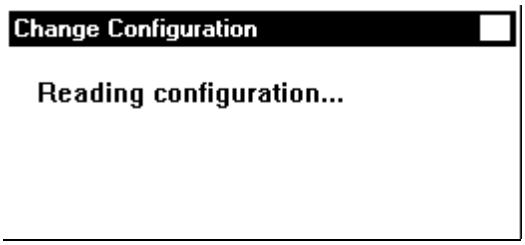

(3) Select (CL) the [Install].



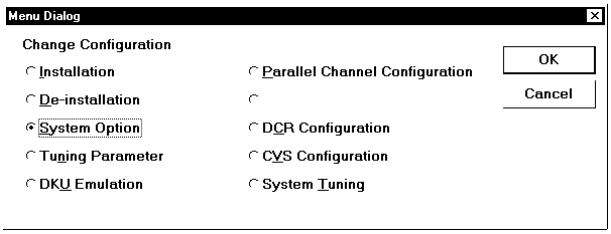

(4) Select (CL) the [Change Configuration].



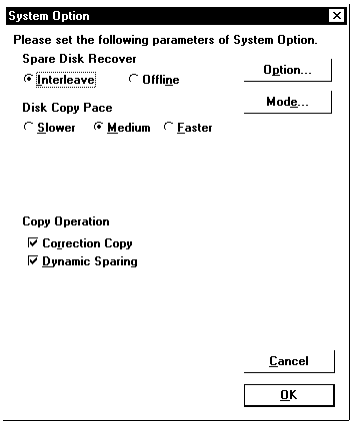
(5) “Reading configuration...” is displayed.



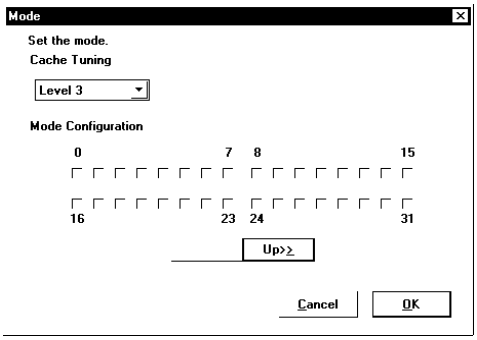

(6) Select (CL) the [System Option] and select (CL) [OK].



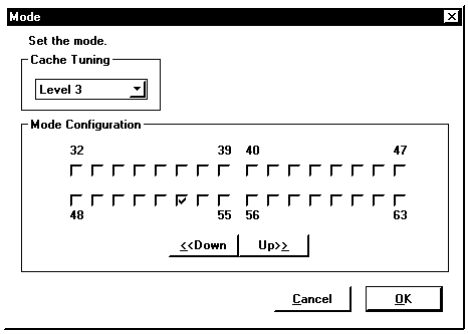

(7) Select (CL) the [Mode].



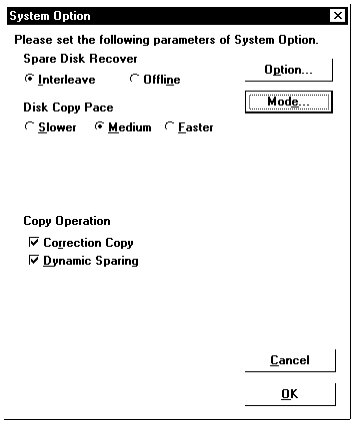

(8) Select (CL) the [Up>>].
the message is displayed with select (CL) the [OK].



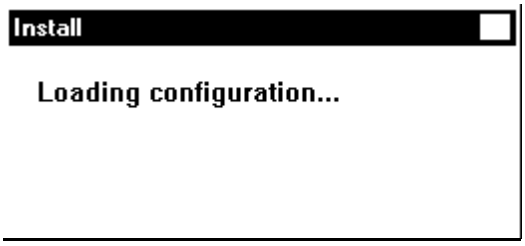
(9) Select (CL) the [Mode 53] and select (CL) [OK].



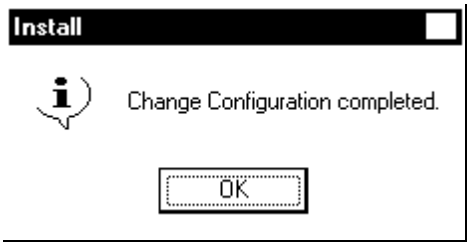

(10) Select (CL) [OK].



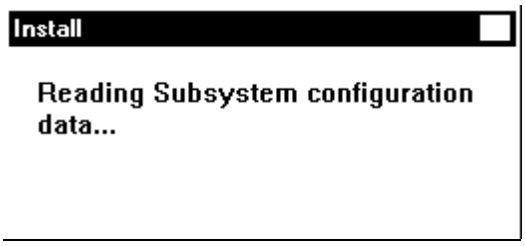

(11) "Loading configuration..." is displayed.




(12) "Change Configuration completed" is displayed.
Select (CL) [OK].



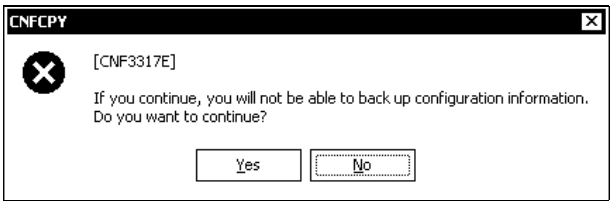
(13) “Reading Subsystem configuration data...” is displayed.




(14) “Please insert config FD in FDD.” is displayed.
Do not insert ‘CONFIG FD’ in FDD, Select (CL) [OK].


(15) “Backup is failed Please insert correct FD.” is displayed.
Select (CL) [Cancel].


(16) “If you continue, you will not be able to backup configuration information.
Do you want to continue?” is displayed.
Select (CL) [Cancel].



(17) Check system Option (Mode 53).
Perform procedure (4) to (8).
Confirm that ‘Mode 53’ is being marked.
Select (CL) the [Cancel], Return to ‘System Option’ screen.
Select (CL) the [Cancel], Return to ‘Install’ screen.

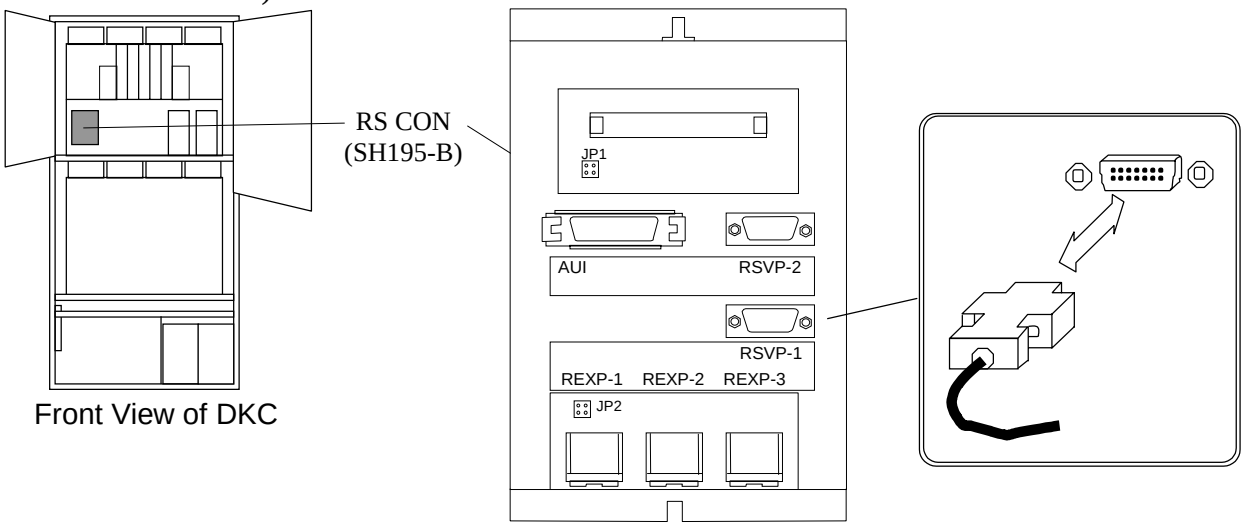
(18) Close the ‘Install’ window, change view Mode.

# 7 Procedure of Removing and Inserting RS232C cable

(1) Please remove the cable from RS CON PCB. (See Fig. 7-1)

(2) Please insert the cable into RS CON PCB. (See Fig. 7-1)

(Multi Cabinet Model)




(Single Cabinet Model)

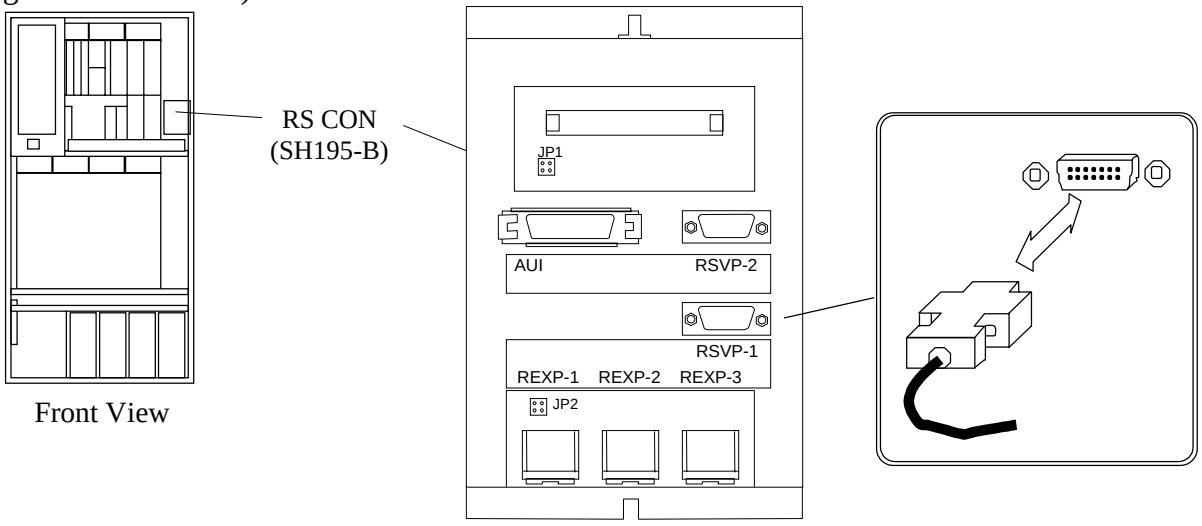



Fig. 7-1

# 8 Rip & Ship

## 8.1 Abstract

Purpose of Rip & Ship is to enable user's LDEV/PDEV resources to be continuously used when the PDEV are moved from a DKC to another.
It is able to move all parity groups in a DKC to another DKC by Rip & Ship function.
It is not supported to select some parity groups to move.

## 8.2 Measures to attain purpose

Information to be handed over is saved on FD by the SVP of the former subsystem and installed by the SVP of the new subsystem.
Note: This procedure needs two blank FDs.
This procedure is the same as DKC replacement.

## 8.3 Restrictions

Restrictions are same as DKC replacement, so please see DKC Change pages.
Configuration of before DKC and after DKC have to be the same.
Such as cache size, ACP number and position etc.

## 8.4 The kind of reported SSB and SIM

Restrictions are same as DKC replacement, so please see DKC Change pages.

## 8.5 Operations

Operations for Rip & Ship is the same as DKC replacement, so please see DKC Change pages.

Caution! Be sure to mark the position of the each HDD.
For example put a label written a position code on it.

## 8.6 Troubleshooting

(1) When some HDDs are blocked.
At first you should confirm the position of HDDs are correct.
And second, you should confirm the connection of cabling.
If you will find an error, firstly you fix it and you retry from first step.

# 9 DKC SWAP (from RAID400 to RAID450)

## 9.1 Outline

### 9.1.1 Abstract

Purpose of DKC swapping programs is to enable user's volume data to be continuously used when the subsystem is switched from the RAID400 to the RAID450.

### 9.1.2 Measures to attain the purpose

Information to be handed over is saved on the Config FD by the SVP of the former RAID400 subsystem and installed by the SVP of the new RAID450 subsystem.
The format of configuration information of the RAID450 is different from one of the RAID400, so the conversion of configuration information is performed on the SVP of the RAID450 subsystem.

Notes: DKC SWAP procedure needs the config FD of the former RAID400.

### 9.1.3 Old subsystem (RAID400) configuration restrictions

| No. | Condition/ Restriction | Detail | Restriction guard |
|---|---|---|---|
| 1 | Subsystem configuration | • HA subsystem.<br>Cannot SWAP SC subsystem. | Please realize by the data migration using HRC etc. |
| 2 | STATUS of the subsystem | • All normal status.<br>• The switching is not allowed if a failed part or a PIN exist.<br>• The switching is not allowed if a Correction copy or Drive copy are running.<br>• The switching is not allowed if a Verify function is running. | If restriction is violated, DKC SWAP is not supported.<br>"Define Configuration and Install" will fail. |
| 3 | HDD type | • There is no restriction. | |
| 4 | RAID level | • There is no restriction. | |
| 5 | Cache configuration | • There is no restriction. | |
| 6 | Volume Emulation type | Following types are not allowed to switch.<br>3380-E 3380-J 3380-K<br>3380-KA 3380-KB 3380-KC<br>3390-1 3390-2 OPEN-K<br>OPEN-M | If restriction is violated, DKC SWAP is not supported.<br>"Dkc Replacement" will fail. |

### 9.1.4 New subsystem configuration restrictions

| No. | Condition / Restriction | Detail | Restriction guard |
|---|---|---|---|
| 1 | Subsystem configuration | MC subsystem<br>Cannot SWAP SC subsystem | Please realize by the data migration using HRC etc. |
| 2 | A failed part or a Blocked part status. | • CHA/DKA/Cache, etc. must be all normal status. | If restriction is violated, DKC SWAP is not supported. "Define Configuration and Install" will fail. |
| 3 | Cache configuration | • Cache capacity fulfills all the conditions are written on "INSTALLATION SECTION (1.1.2 Configuration and number of necessary options)" | If restriction is violated, a failure will occur when turning the power on. |
| 4 | SM configuration | • SM capacity fulfills all the conditions are written on "INSTALLATION SECTION (1.1.2 Configuration and number of necessary options)" | If restriction is violated, a failure will occur when turning the power on. |
| 5 | Number of CHA/DKA PCBs, and their locations | • There is no restriction. | |
| 6 | Number of Channels, and their locations | • There is no restriction. | |

### 9.1.5 Re-establishment item

The configuration information which needs a re- establishment is as follows.

| No. | Item | Restriction |
|---|---|---|
| 1 | DKC serial No. | A serial number is defined by "Define configuration and Install". |
| 2 | Program Products (P.P.)<br>* HRC/HORC/HMRCF/ HOMRCF etc. | A P.P. for RAID450 is different from P.P. for RAID400.<br>So it is necessary to make a contract for the P.P. anew and to set information for the P.P.<br>But the connective information of logical devices for LUSE is handed over for keeping user's volume data. |
| 3 | System Option Modes | There are some System Option Modes whose meaning is different from meaning on RAID400. So System Option Modes are not handed over. Set System Option Modes which are needed for the site. |
| 4 | LUN | There is no restriction with number of CHA PCBs , number of channels and their location. To realize those, a information of LUN isn't handed over. |

### 9.1.6 The kind of reported SIM and SSB

The following SIM and SSB will be reported in DKC SWAP operations.

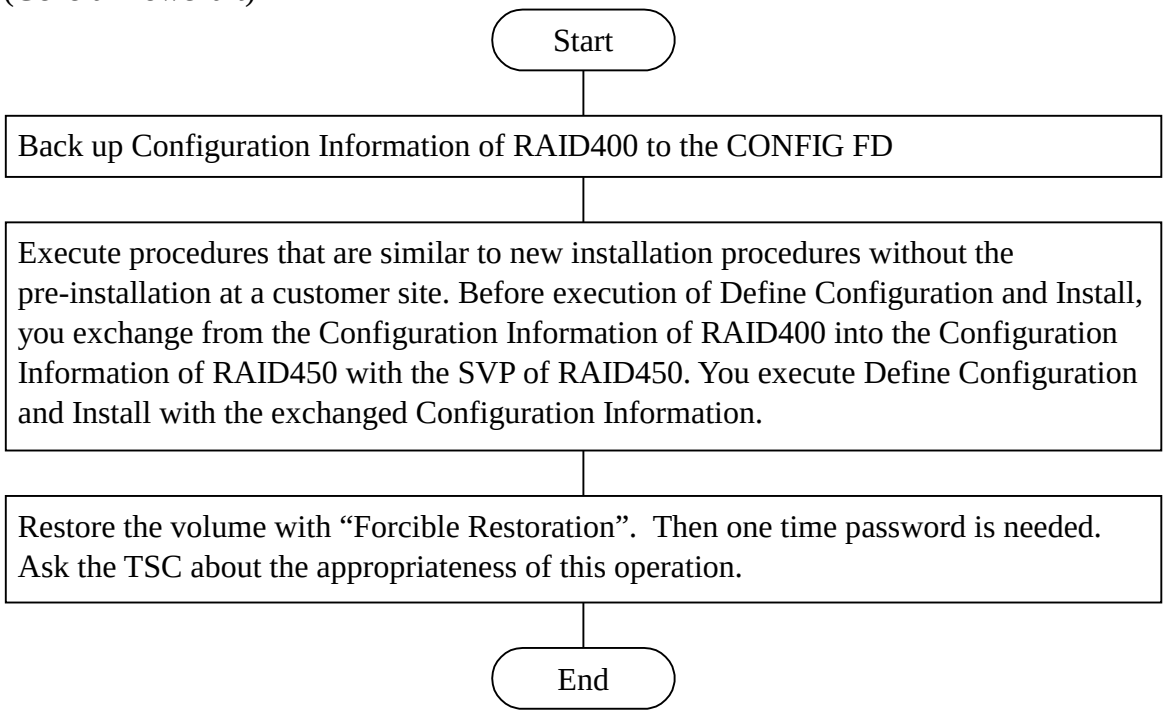
| SIM CODE | Contents | Note |
|---|---|---|
| 3073 | CHP is failed. | An influence by Fixed Minimum Configuration Information. |
| 3990 | CHP is failed, because it isn't installed in configuration information. | An influence by Fixed Minimum Configuration Information. |
| 3d90 | DKP is failed, because it isn't installed in configuration information. | An influence by Fixed Minimum Configuration Information. |
| 3da0 | FSW LED bus test error. | An influence by un-connection of FIBRE cable. |
| 3db0 | DKP is failed. | An influence by un-connection of FIBRE cable. |
| AC50 | HDU power off. | An influence by un-connection of FIBRE cable. |
| BFxx | Environmental Error. | An influence by un-connection of FIBRE cable. |

| Error Code | Contents | Note |
|---|---|---|
| 0007 | MP is failed, because it's been late for "P/S ON". | An influence by Fixed Minimum Configuration Information. |
| 0009 | MP is failed, because it isn't installed in configuration information. | An influence by Fixed Minimum Configuration Information. |
| 000C | MP is failed, because the type of PCB in configuration information isn't equal to the actual type. | An influence by Fixed Minimum Configuration Information. |
| 001D | From FM to SM, micro-transfer practice. | At the time of the Shared Memory volatile mode. |
| 15DA | Information at making configuration information. | It always is reported when execute "Define Configuration & Install". |
| 32CC | HDU power off. | An influence by un-connection of FIBRE cable. |
| 32EC | The bus mode in configuration information isn't equal to the actual mode. Configuration information is corrected. | It is reported when execute temporary "Define Configuration & Install". |
| A040 | Maintenance process LIP or Login is time out. | An influence by un-connection of FIBRE cable. |
| A042 | Information at FIBRE failure. | An influence by un-connection of FIBRE cable. |
| A210 | Failure at initializing FSW or FIBRE loop. | An influence by un-connection of FIBRE cable. |
| A9A0 | Information at FIBRE failure. | An influence by un-connection of FIBRE cable. |
| A9F1 | Information at FIBRE failure. | An influence by un-connection of FIBRE cable. |
| A9F8 | Link failure.. | An influence by un-connection of FIBRE cable. |
| AB45 | Link failure. | An influence by un-connection of FIBRE cable. |
| AE5D | Failure to read/write FSW buffer. | An influence by un-connection of FIBRE cable. |
| B110 | Failure to exchange an attribute of channel port. | An influence by Fixed Minimum Configuration Information. |
| B440 | Success to initialize TPC. | It always is reported when execute ordinary "P/S ON". |
| B441 | MP doesn't execute to initialize TPC. | An influence by Fixed Minimum Configuration Information. |
| B453 | Success to stop TPC. | It always is reported when execute ordinary "P/S OFF". |

## 9.2 Change flowchart

NOTICE :
Field Engineers are to perform a check referring to “Restrictions” before you start DKC SWAP.

(General flowchart)



(Detail flowchart)

Operation on RAID400

Operation on RAID450

Start

(1)-1 Make sure the breaker is off (DKC).
(1)-2 Check the size of the Cache and SM DIMM with the DKC and remember them for later use in step(49) and step(63).
(1)-3 If the LAN cables of the DKC are connected, disconnect them except the SVP to the DKC.

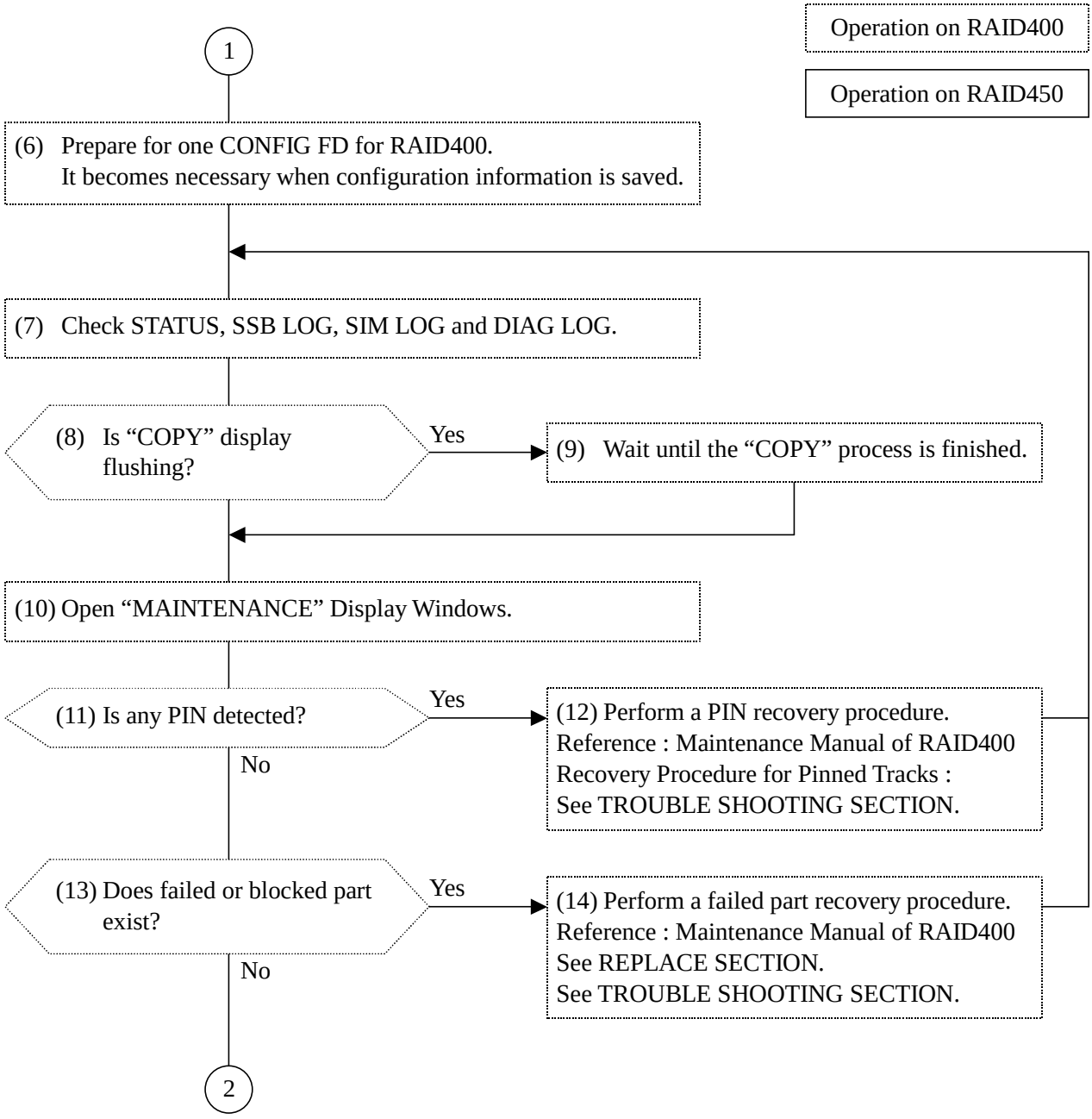
(2) Turn on the breaker (DKC) and wait for the SVP ready to use. (Don't turn on the "POWER ON/OFF" switch on the DKC Panel PCB.)

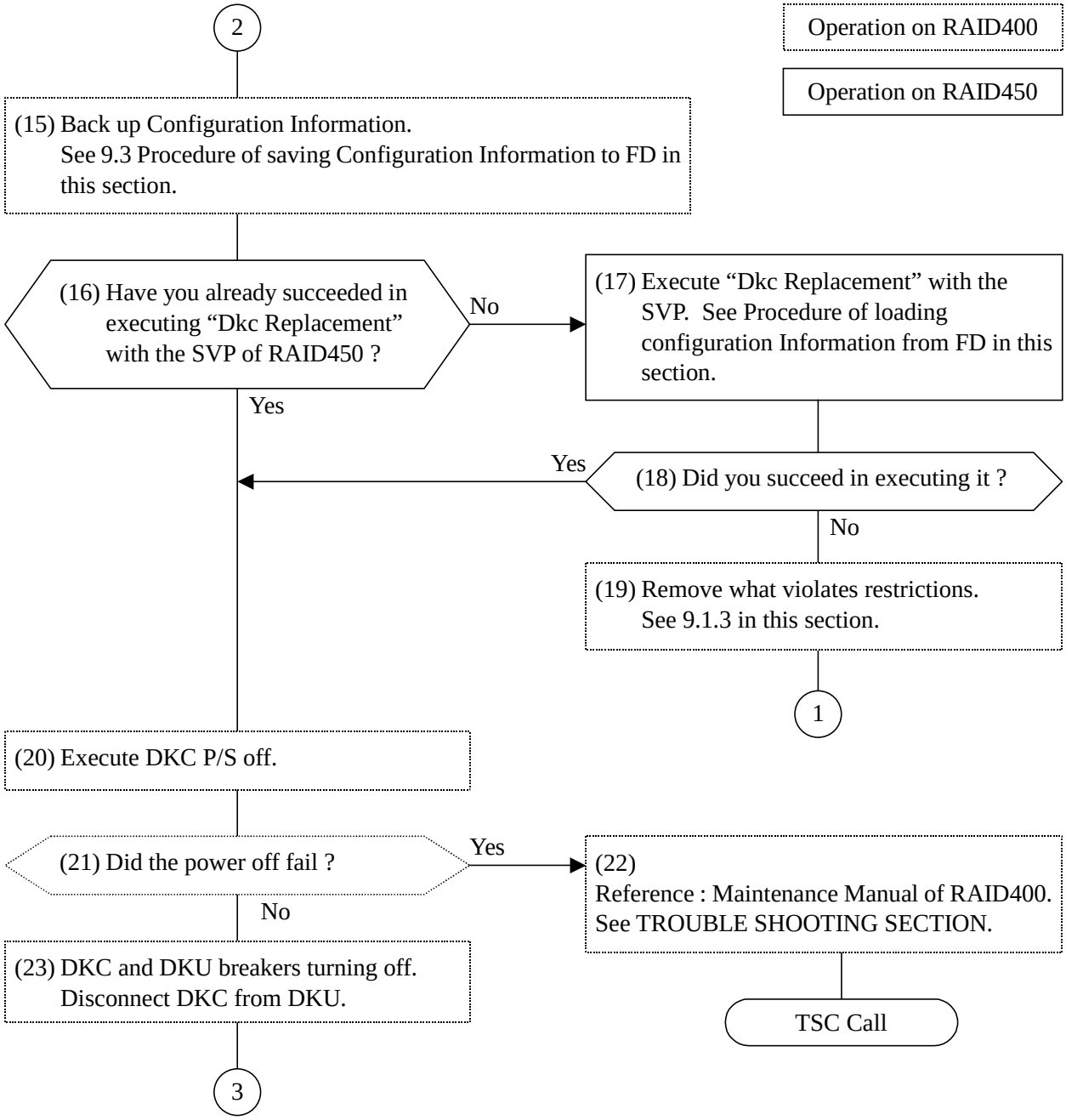
(3) Set the Maintenance jumper to "SVP PS ON/OFF INH jumper"(JP2) on the RS CON.
When the SVP High Reliability Kit(DKC-F460I-SVP) is installed , set the Maintenance jumper to "SVP PS ON/OFF INH jumper"(PS CTLINH) on the SVPPS Box.

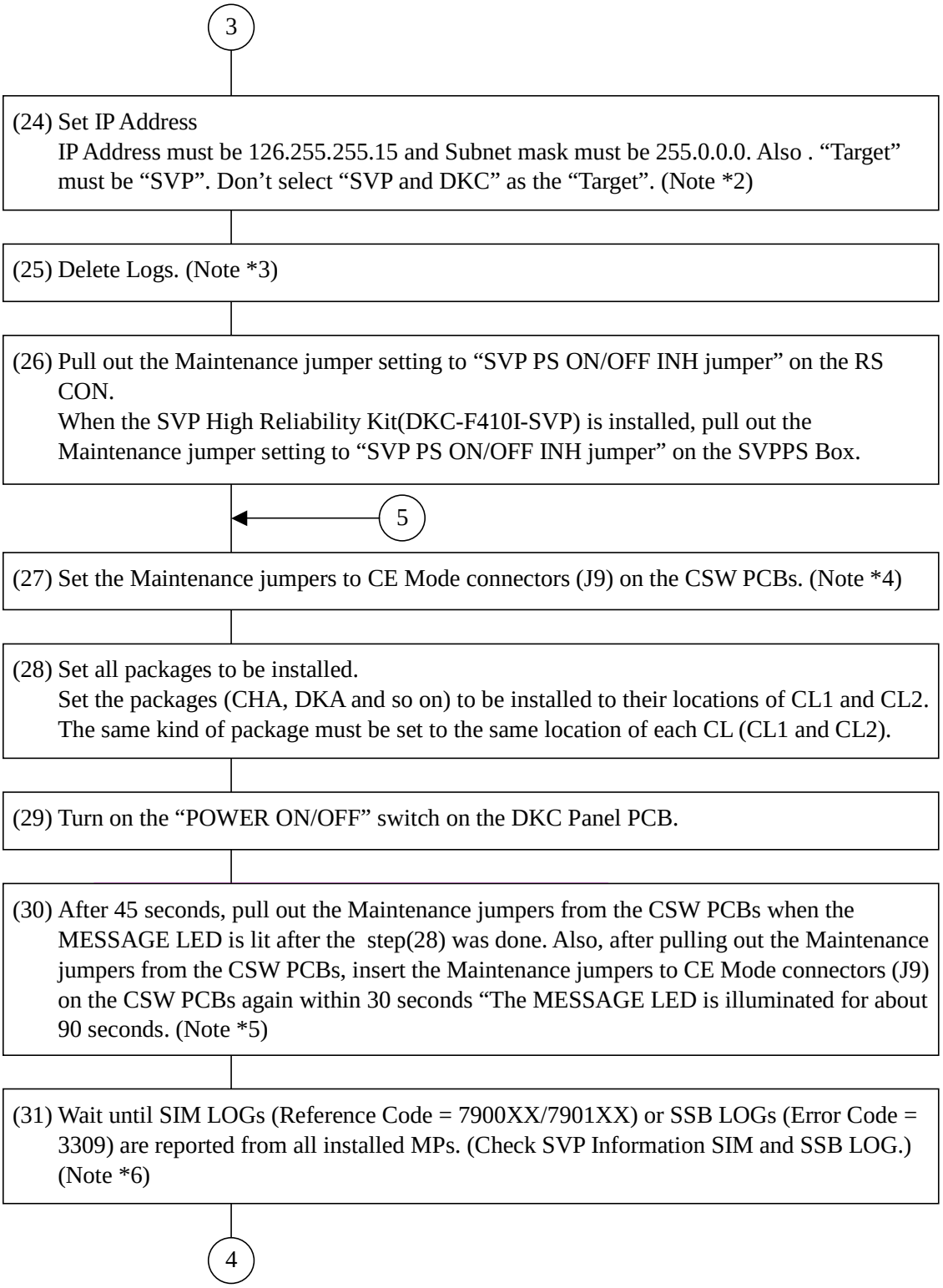
(4) Set TOD (At this time, "Communication Error" may occur. You can ignore the error.)

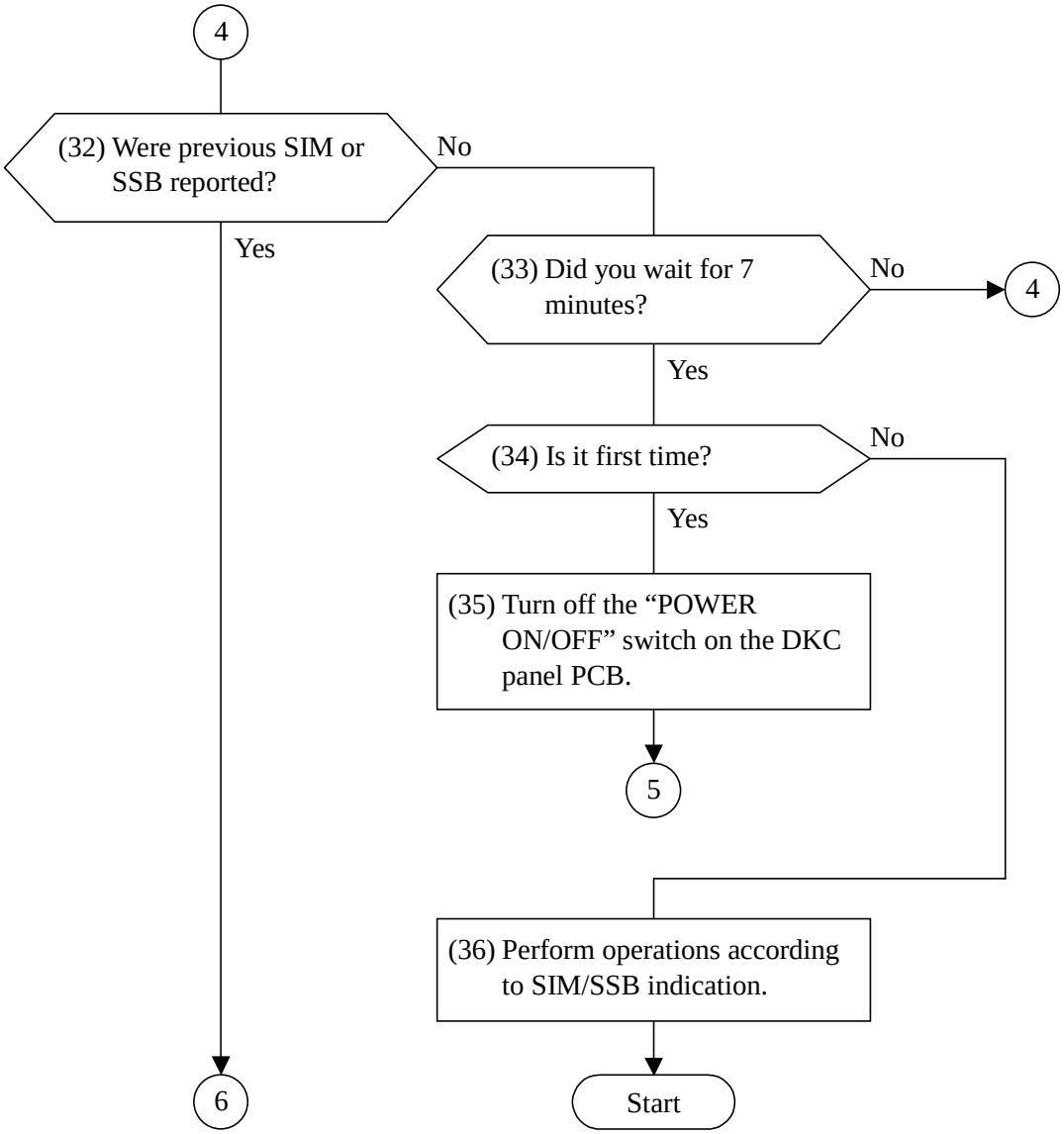
(5) Execute the following procedures.
step 1 : Prepare the CD-ROM and CONFIG FD for the new RAID450 DKC. (Note *1)
step 2 : Insert the CD-ROM disk into its drive.
step 3 : Click "START" on the task bar and select "Run...".
step 4 : Enter the following command. e:\setup.exe(enter)
(Set the CONFIG FD when the message "Please insert the Config FD in the FDD." is output, and then click "OK". Also, remove the CONFIG FD when "Please remove Config FD in the FDD" messages is output. And then, click "OK".
This operation causes the "SVP Reboot". And soon, the "SVP window" is displayed.)
step 5 : Remove the CD-ROM from its drive.

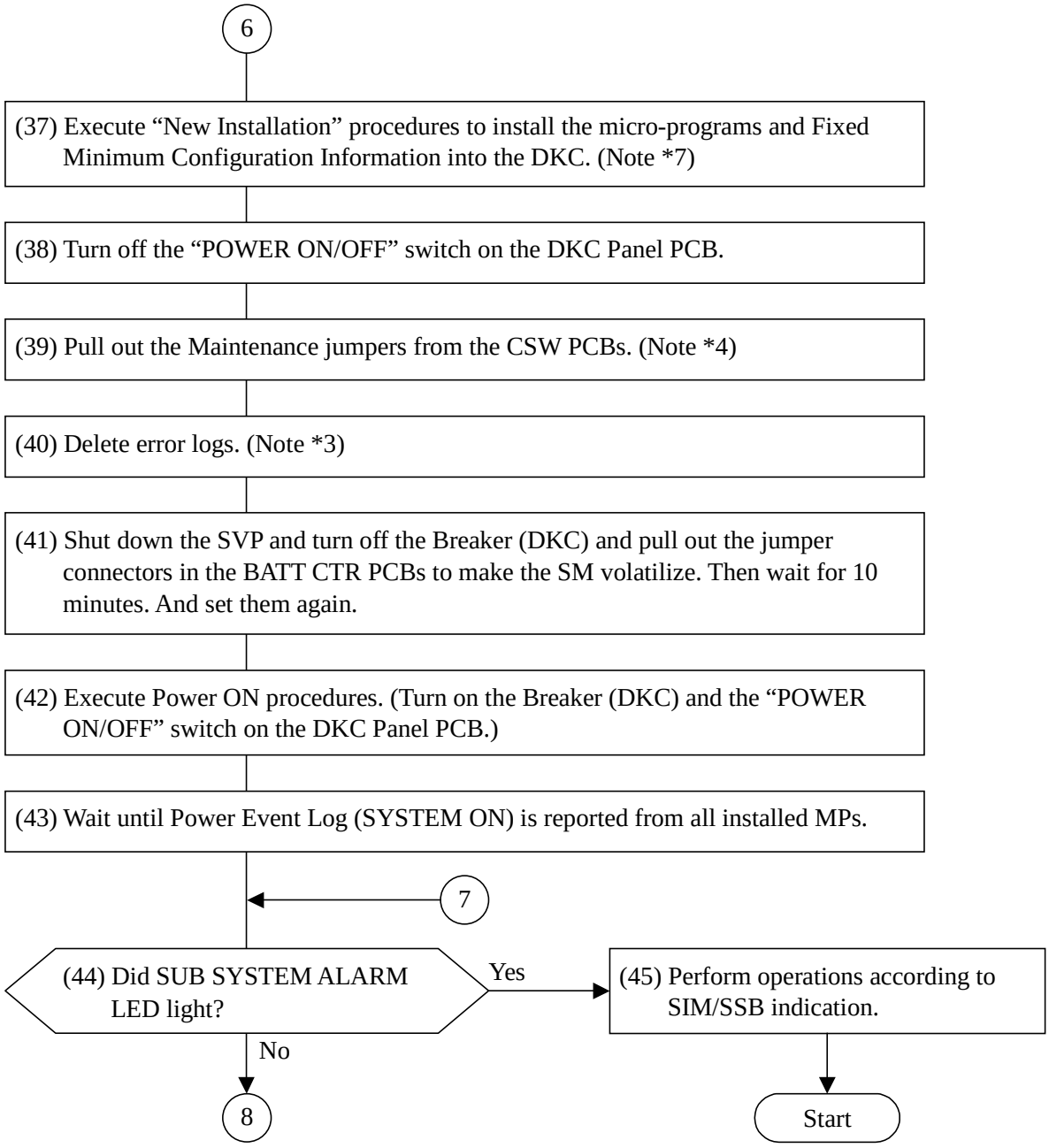
1

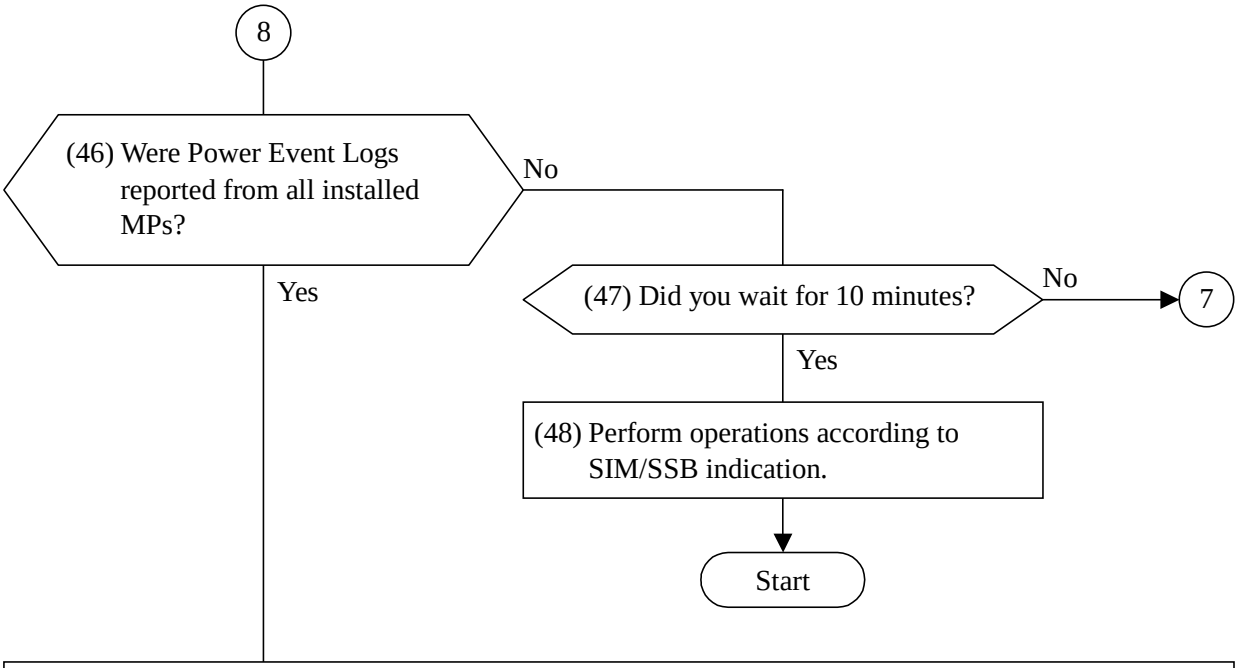








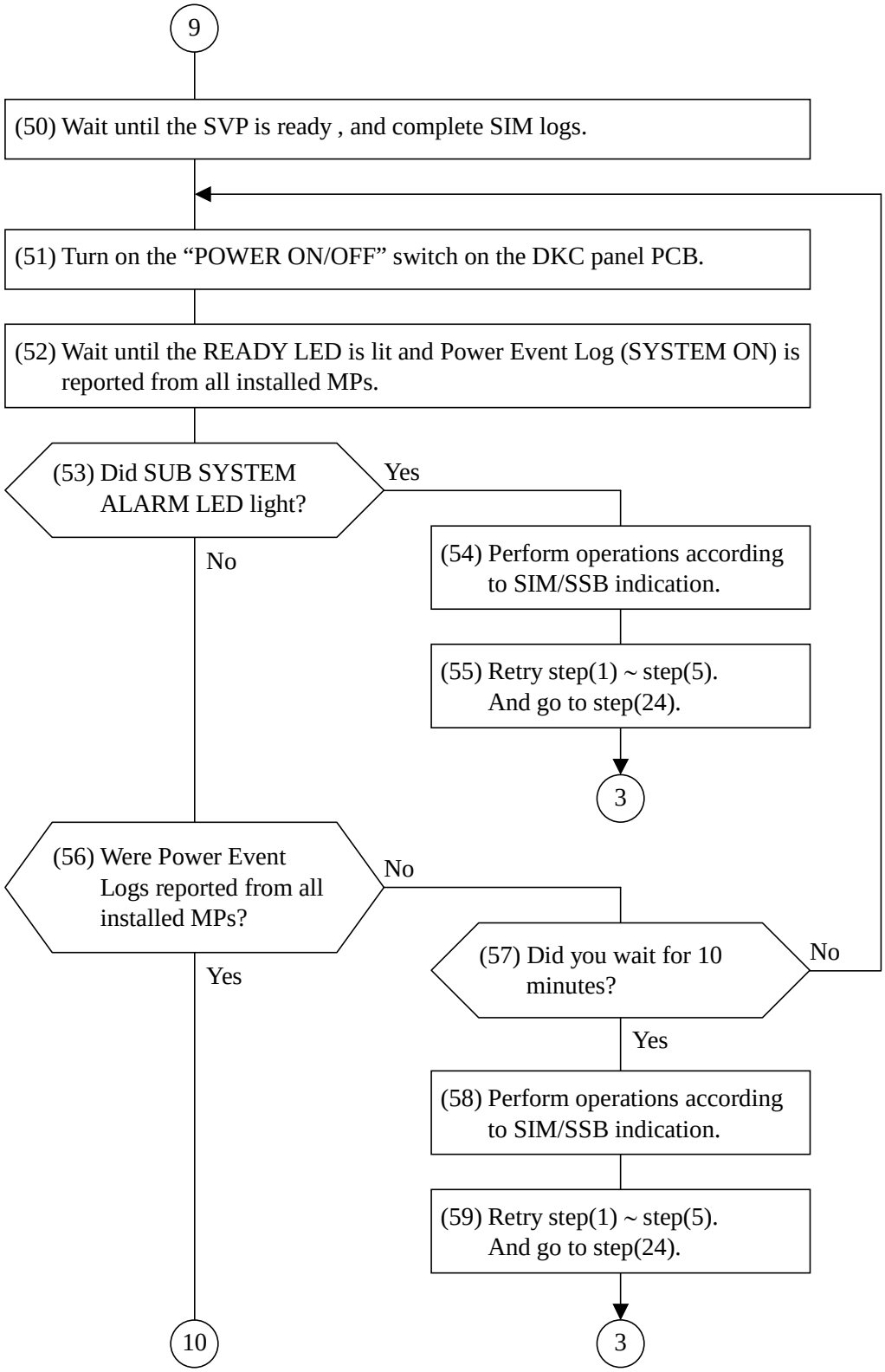


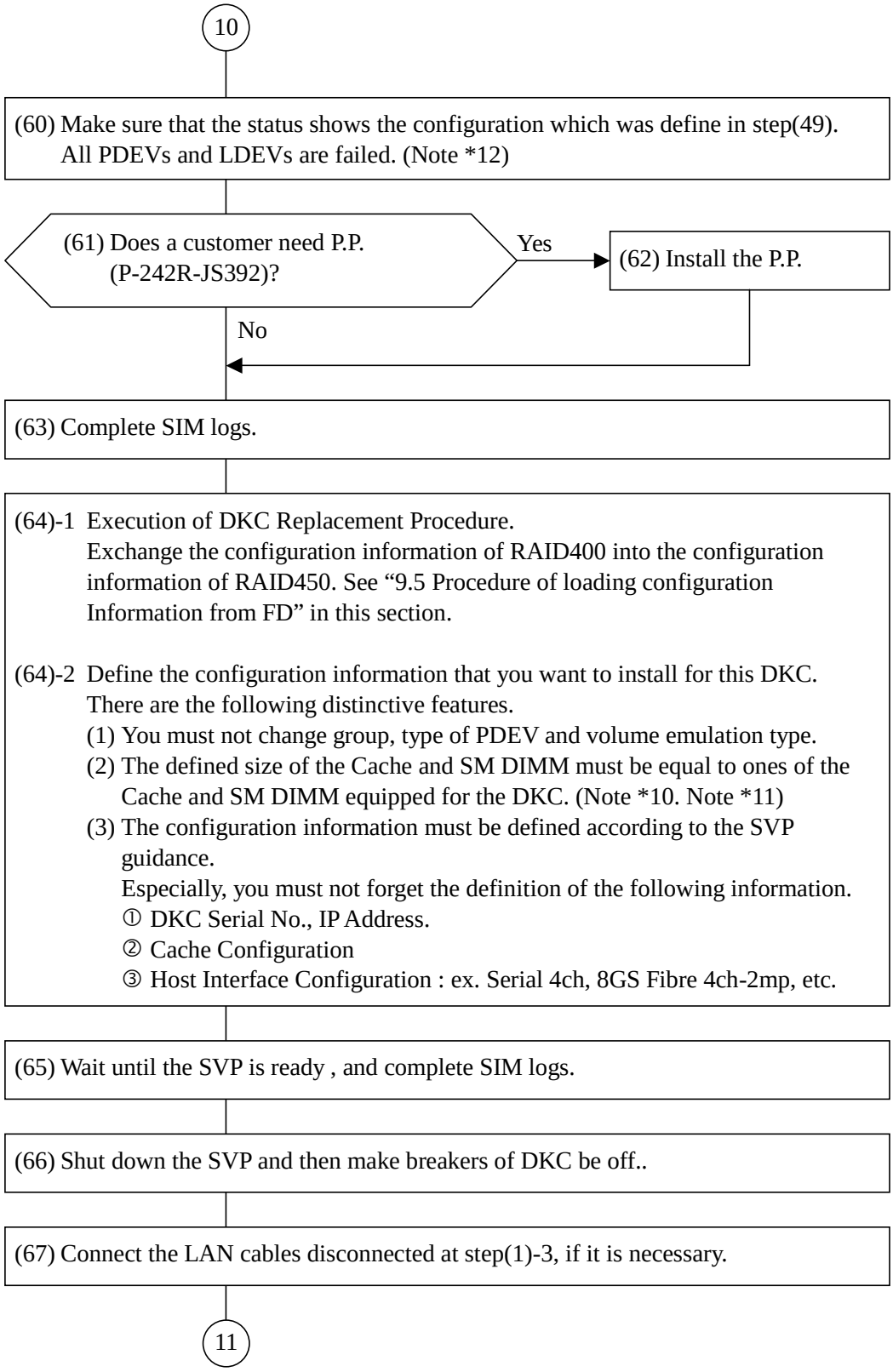


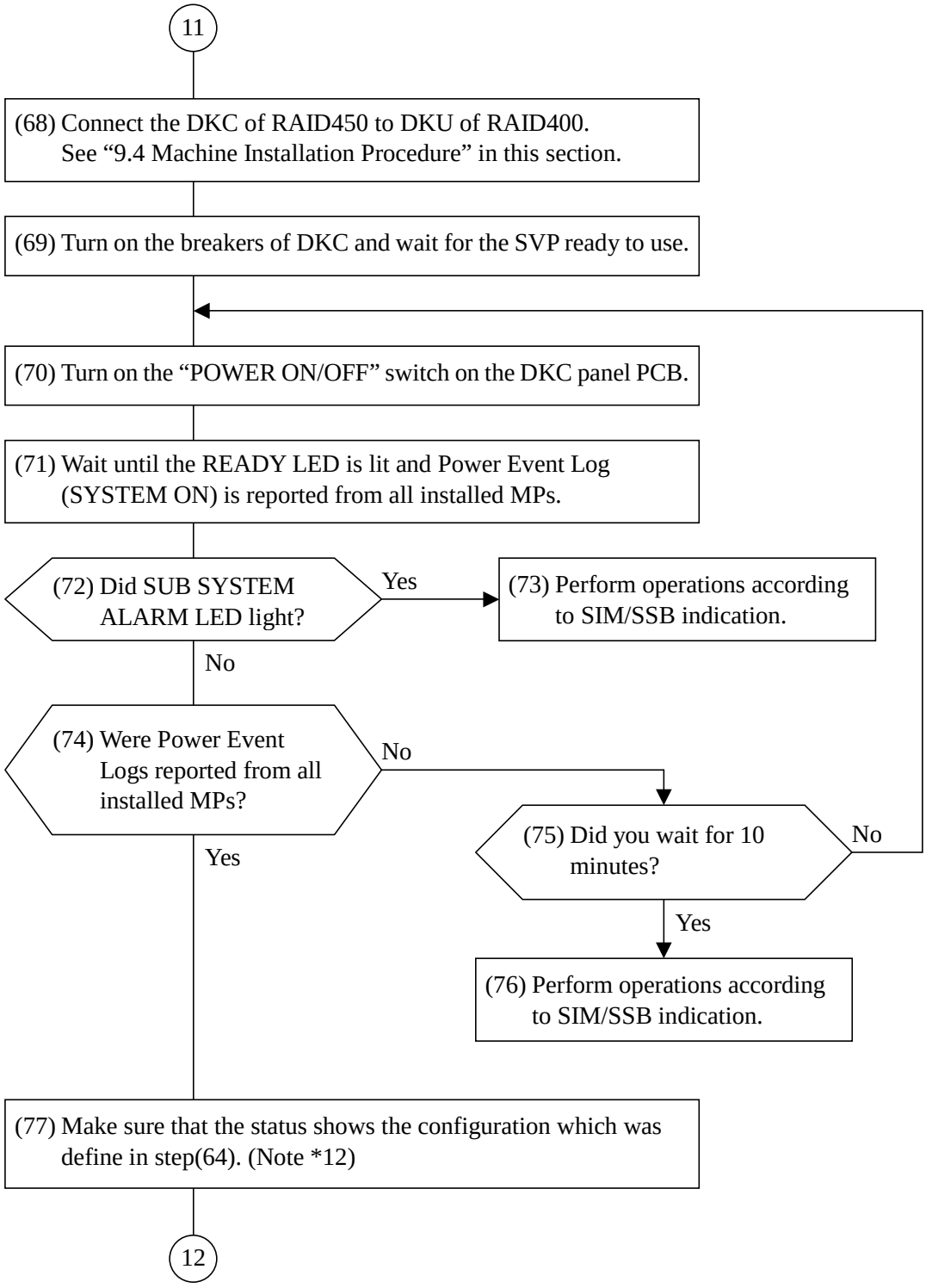

(49)-1 Execution of Config Exchange Procedure.
Select the “Install” in the “SVP” window and select “Copy Config Files” in the “Install” window.
And select “All Configuration Files” in the “Copy Config Files” window.

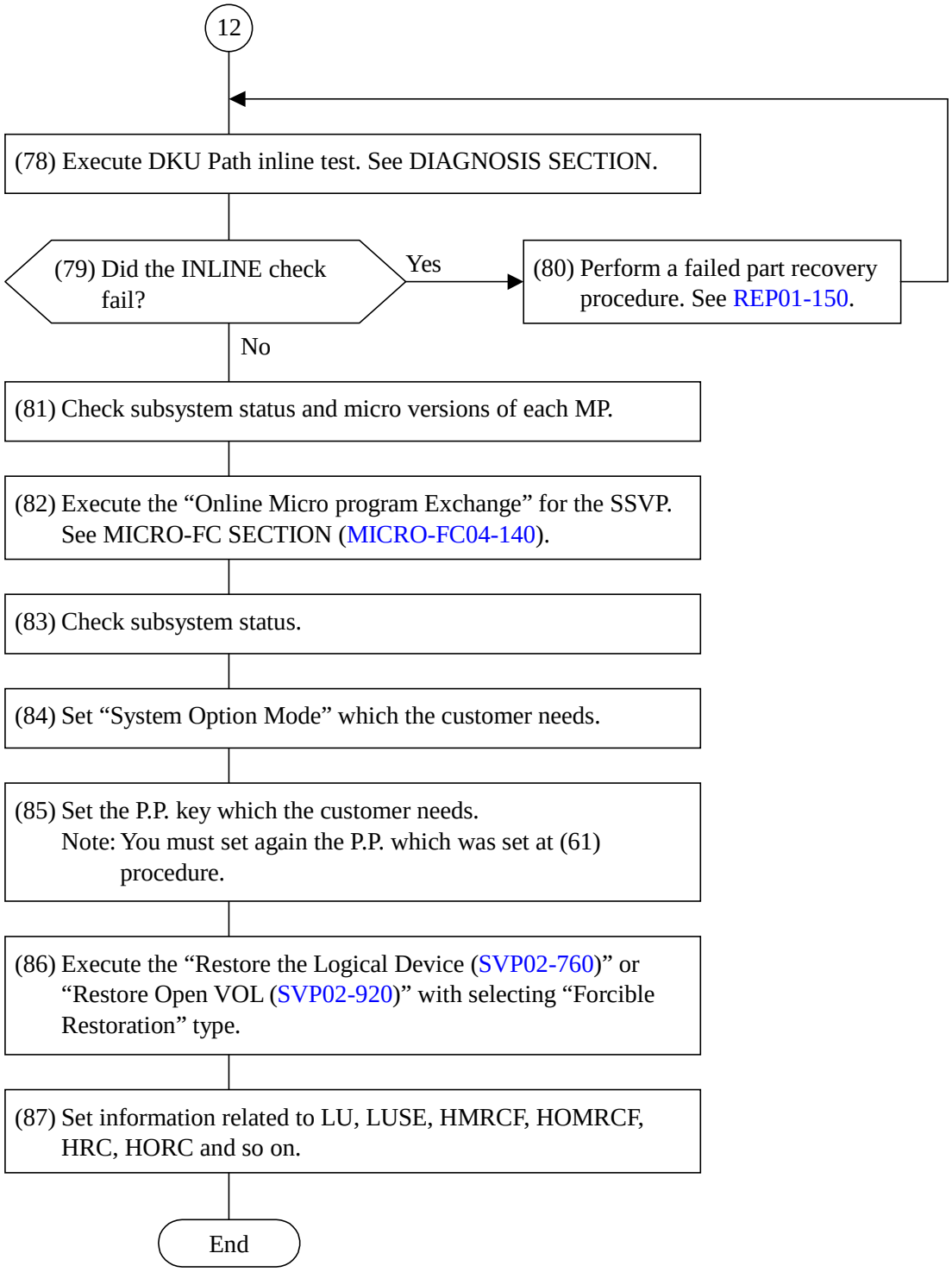
(49)-2 Define the configuration information that is similar to what you want to install for this DKC.
Some volume emulation type needs P.P. So it is necessary to define the temporary configuration information. The temporary configuration information has the following distinctive features.
(1) The defined group must be group 1-1.
(2) The defined type of PDEV must be DKR1B-J047FC.
(3) The defined volume emulation type must be 3390-3 or OPEN-3.
(4) The defined size of the Cache and SM DIMM must be equal to ones of the Cache and SM DIMM equipped for the DKC. (Note *10. Note *11)
(5) The configuration information must be defined according to the SVP guidance.
Especially, you must not forget the definition of the following information.
① DKC Serial No., IP Address.
② Cache Configuration
③ Host Interface Configuration : ex. Serial 4ch, 8GS Fibre 4ch-2mp, etc.

9









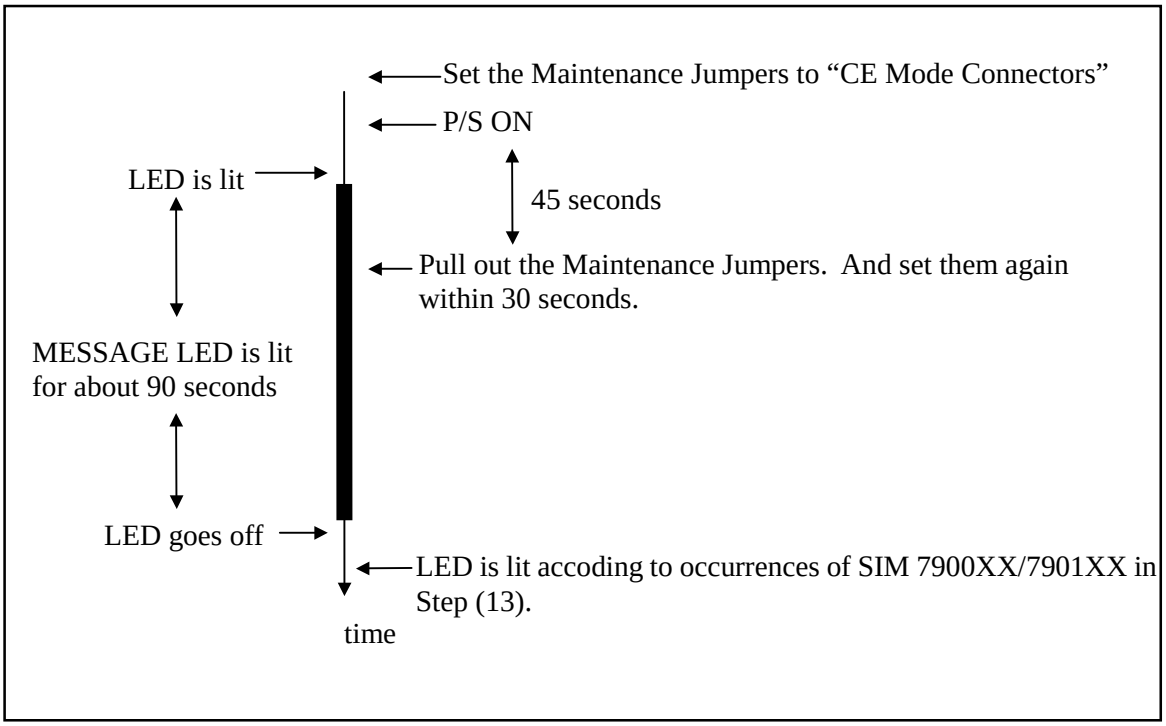
Note *1 : The CD-ROM includes the micro-programs to be installed into the DKC subsystem.
And the FD should correspond to the micro-program version.

Note *2 : Even if the “IP Address” is “126.255.255.15” and the “Subnet Mask” is “255.0.0.0” on the screen of “Set IP Address”, be sure to select “OK” and reply “OK” to the message “This will reboot SVP.”.

Note *3 : It’s necessary to execute the procedure of “SIM Log Complete” before deleting the SIM data.

Note *4 : Refer to the following about the Maintenance Jumpers.
- “INST02-30 Note *1” (Multi Cabinet Model)
- “INST02-20 Note *1” (Single Cabinet Model)

Note *5 : The detail of the jumper operation is as follows.
(1) Turn on the P/S ON switch.
(2) At 45 seconds after (1), pull out the Maintenance Jumpers from the CSW PCBs. Then, MESSAGE LED illuminates. The LED is lighting for about 90 seconds.
(3) Insert the Maintenance Jumpers to the CE Mode connectors (J9) on the CSW PCBs again quickly (within 30 seconds) after pulling out the Jumpers at (2).
Operations (2) and (3) must be executed during the Message LED is lighting.



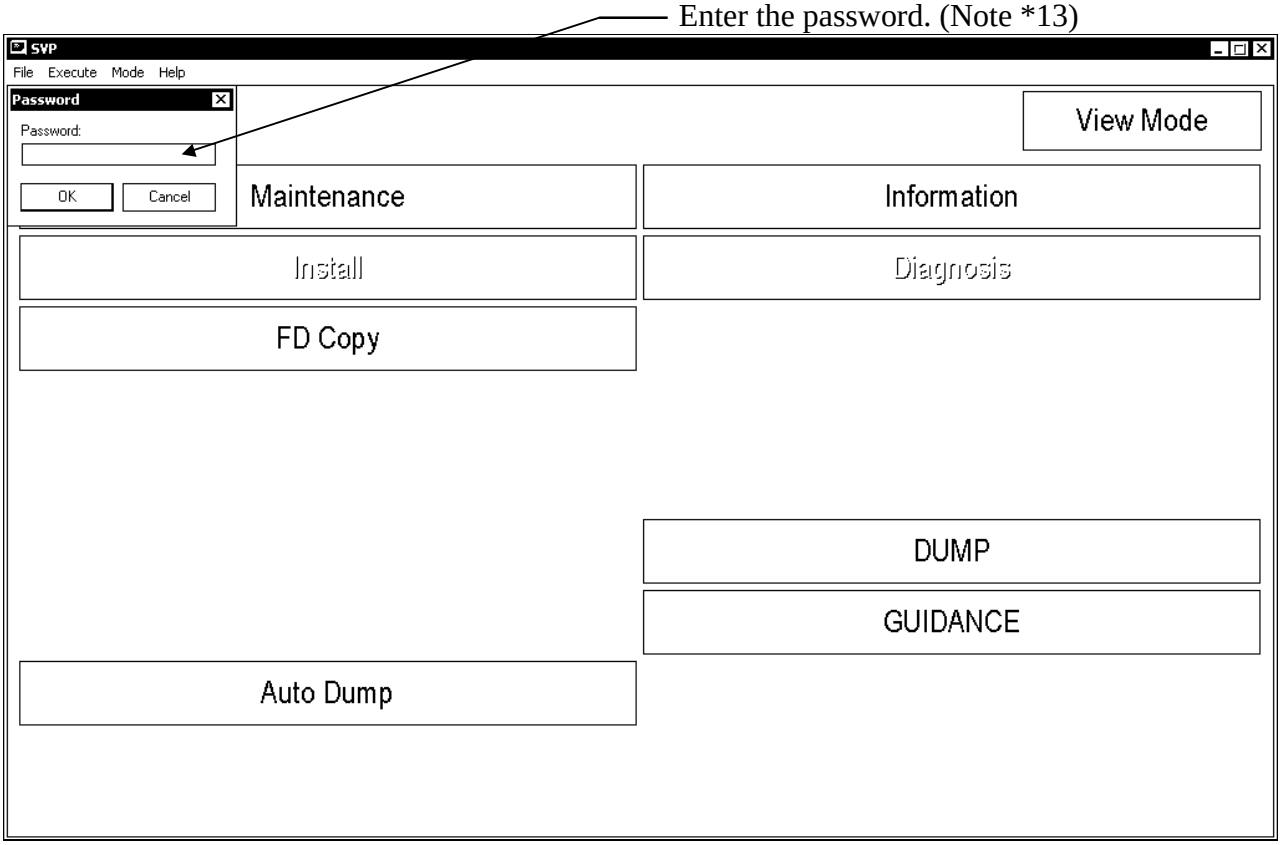

Note *6 : Count SSB Logs (Error Code = 3309). The number is same as the number of the installed MPs.

Note *7 : The procedures of “New Installation” are as follows.

(1) Return to the SVP window.

(2) Press the following keys at the same time to change the mode to “Initial Setting”.
[SHIFT], [CTRL], [I]

(3) Enter the password.
This password must be used only for this procedure. Don’t use for other purposes without approval by the technical support center or the factory.




(4) Select “Install”.

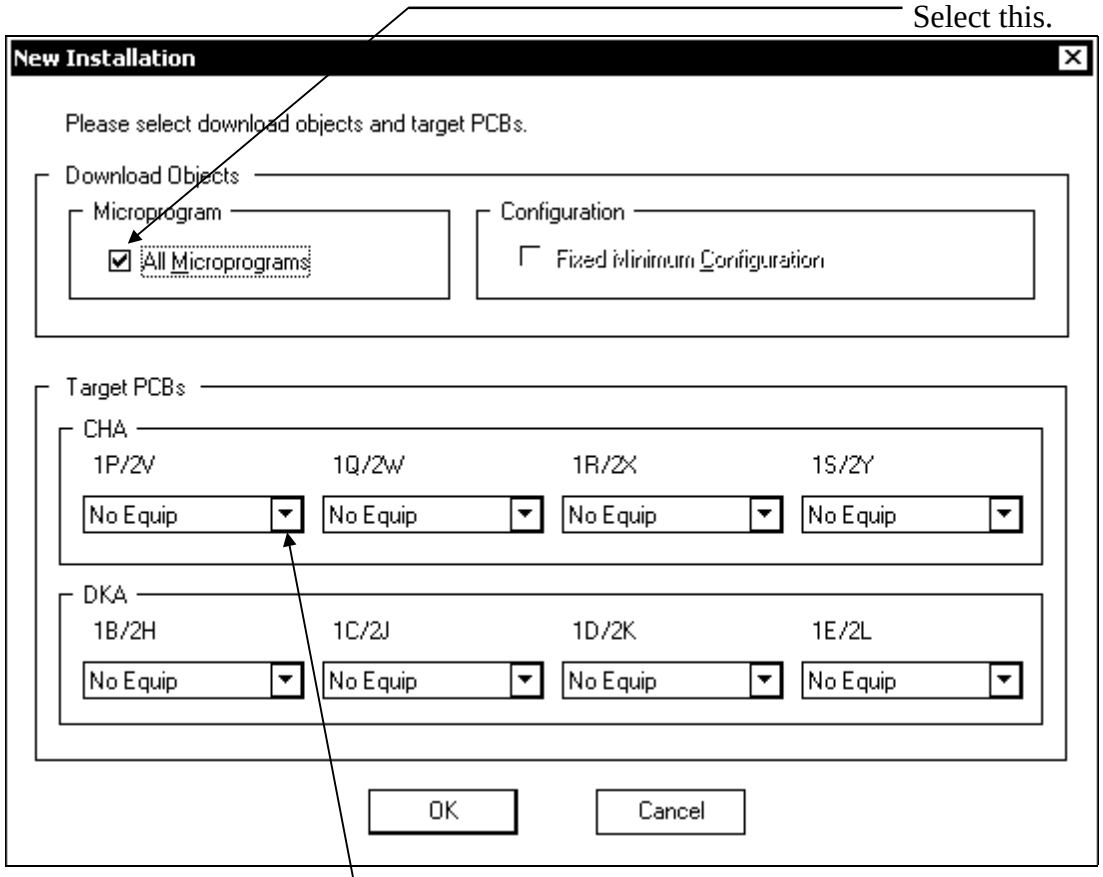
(5) <Install Window>
Select “Micro Program Install”.

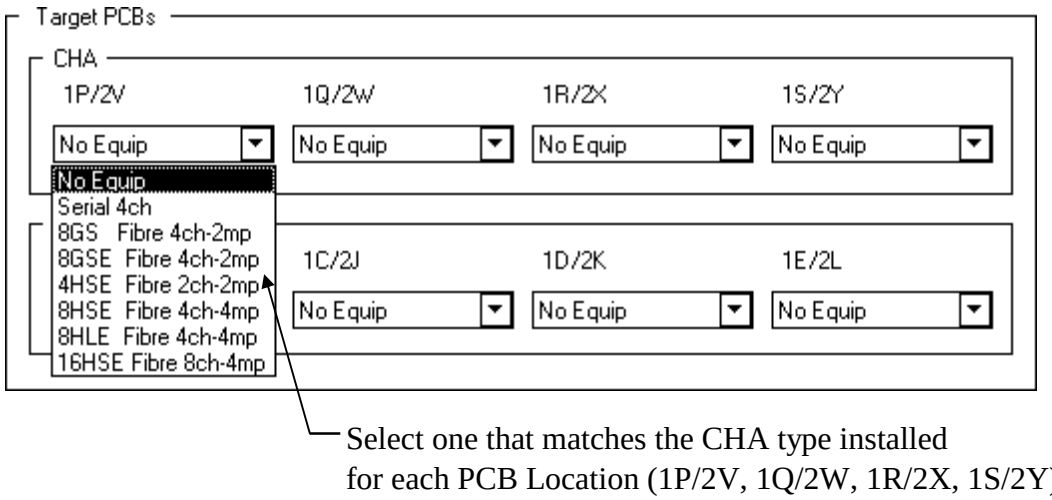
(6) <Menu Dialog Window>
Select “New Installation”.

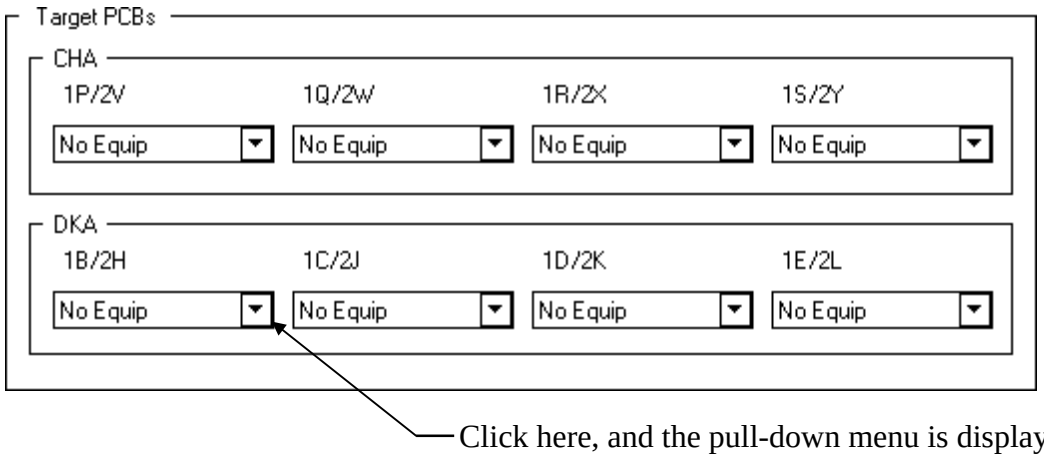
(7) Select “Yes” to the following message.
“Are you sure you want to execute new installation?”

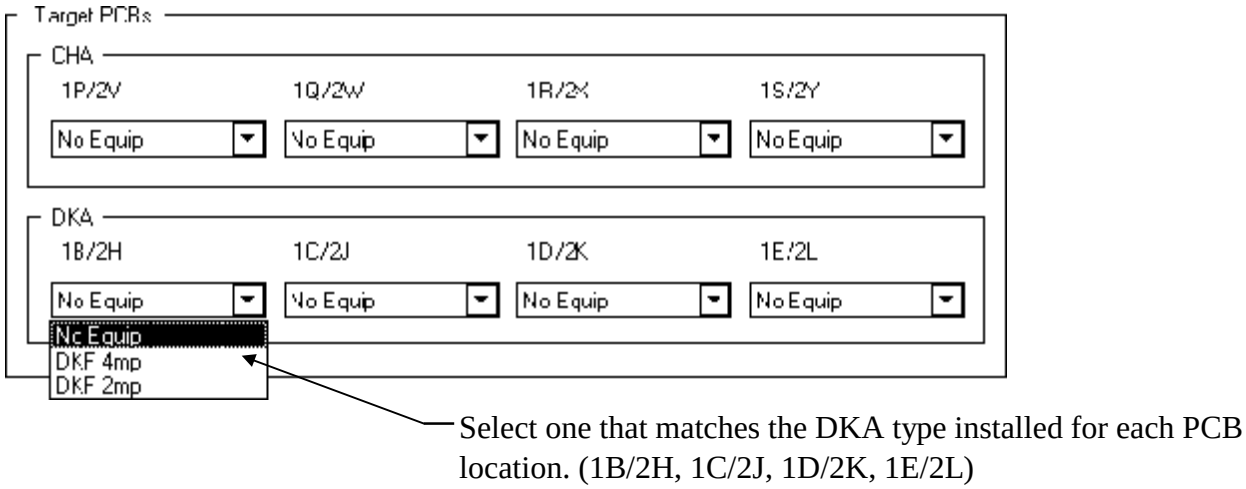
(8) <New Installation PCB configuration Window>
After (7), the following window is displayed. At the window, specify as follows:
① Select “All microprograms”. (“Fixed Minimum Configuration” should be selected automatically.) (Note *14)
② Select the package type (host interface and so on) of the current packages setting in their locations of “CHA” or “DKA”.
③ Select “OK” after finishing the above specifications.

[Example of operations]






(9) The message, "[INS3302i] New installation finished normally.", is output.
Then, click "OK", and the "Installation window" is closed.
(Till the message, "[INS3302i] New installation finished normally.", is output, you must not select "Cancel" in the "Shell Batch Execute Status" window. If "Cancel" is selected, this process is interrupted. If "Cancel" is selected by a mistake operation, try again from (6) of INST02-530.)

Note *8 : The following SIM Logs are output by pulling out the jumper connectors in the BATCTR PCBs.
SIM Logs: bf5010, bf5210, bf5020, bf5220
But you can ignore them.

Note *9 : At this time, the initializing processings of the DKC subsystem are performed by using the minimum configuration. The minimum configuration is the special configuration for the New Installation Procedure (Note *14). So, the READY LED is not lit. Also, the SIM Log (3073XX, 3173XX, 3390XX, 3D90XX and FFE800) may be output if the current configuration is different from the "Fixed Minimum Configuration". But they should be ignored. And you should not select "Maintenance" in "SVP window" until the Define Configuration Procedure is performed at step (31).

Note *10: Press the following keys at the same time to change the mode to "Initial Setting".
[SHIFT], [CTRL], [I]
And input the password. (Note *13)

Note *11: In this definition, specify the actual DKC Serial Number.
Also, "IP Address" should be specified as follows:

① Specifying the IP Address according to the DKC Serial Number Select "Based on Serial Number", and the IP Address will be assigned automatically.

② Specifying the IP Address according to the magic number
Select "Based on Magic Number" and specify a magic number. Then, the IP Address will be assigned automatically.

③ Specifying in option
Select "Specified" and specify the optional address for the IP Address.
And, the defined value for the size of the Cache and SM DIMM should be equal to the value that was confirmed at (1) in the processing flow. After the configuration information is defined, P/S OFF of the DKC and the reboot of the SVP will be executed.

Note *12: Surely, check the following status:
(1) the condition of each PCB status.----- PCB Kind/Normal or not/etc
(2) the micro-program version

Note *13: For the password, ask the technical support center. And use it with their approval.

Note *14: The “Fixed Minimum configuration” is a temporary configuration to unify the condition of the power-on processing in Step (24) and is not concerned with the current configuration. It is used only in “New Installation” procedure.
The following information is defined in the “Fixed Minimum Configuration”.

① Basic DKC Configuration (1P/2V for “CHA”, 1B/2H for “DKA”)
IP Address = 126.255.255.xx
Serial 4ch for Host interface configuration
4mp for the DKA

② Option PCBs Configuration (1Q/2W, 1R/2X, 1S/2Y, 1C/2J, 1D/2K, 1E/2L)
: None (No equip)

③ Cache size : 512 MB for each side.

④ SM size : 256 MB for each side.
(DIMM : 128 MB × 2)

⑤ LDEV/PDEV/LCP Configuration : None

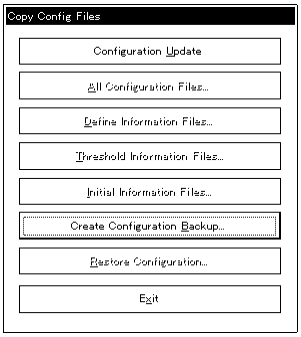
## 9.3. Procedure of saving Configuration Information to FD (used in RAID400)

The backup processing of necessary composition information is done for the DKC exchange. The backup procedure of composition information is shown in the following. DKC is exchanged based on Config FD made here.

(1) Change the mode to [Modify Mode], and select(CL) [Install].

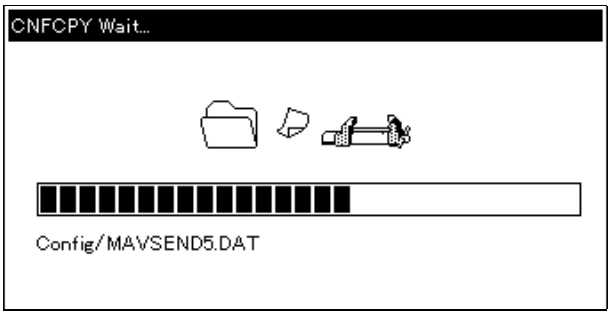
(2) Select (CL) [Copy Config Files].

(3) Select (CL) [Create Configuration Backup…].



(4) Please insert the Config FD, and then select [OK].


(5) The backup processing inside window is displayed.




(6) Please remove the FD from FDD, and then select (CL) [OK].

## 9.4. Machine Installation Procedure

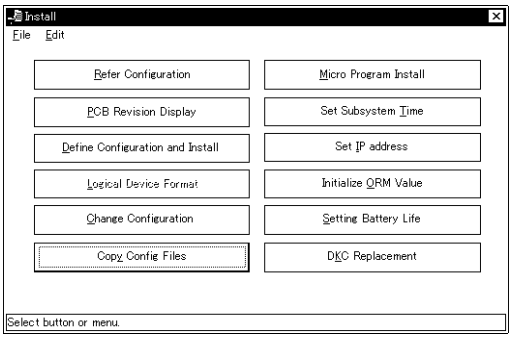
Please connect the DKU of RAID400 with DKC of RAID450. (Refer to the Install section.)

## 9.5. Procedure of loading configuration Information from FD (used in RAID450)

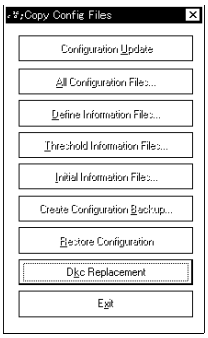
The exchange processing of DKC is done based on composition information on RAID400. The loading procedure of composition information is shown in the following.

(1) Change the mode to [Swap Mode].
- Select [Shift] + [Ctrl] + [Alt] + [P].
- Enter the password and select (CL) [OK].
- Select (CL) [Install].

(2) Select (CL) [Copy Config Files].

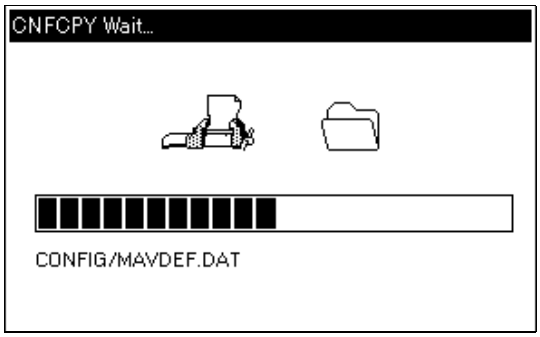



(3) Select (CL) [Dkc Replacement].




(4) Please insert the Config FD made by 9.3, and then select [OK].
When invalid Config FD is inserted, the error message is displayed. Please Config FD is remode from the old subsystem, and retry the operation.

(5) The processing inside window is displayed.




(6) Please remove the FD from FDD, and then select (CL) [OK].

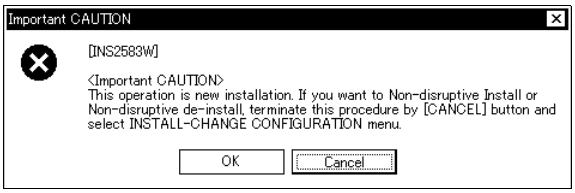

(7) Select (CL) [Exit].

(8) Select (CL)[Define Configuration and Install] form [INSTALL].

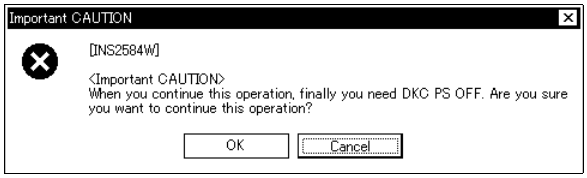
(9)

NOTICE:
LDEV/PDEV of an old subsystem is reflected in a new subsystem by the DKC exchange. Therefore, please do not change information of the setting location “(13)-(18)” of the LDEV/PDEV. It is special (exception) work to need the password input. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

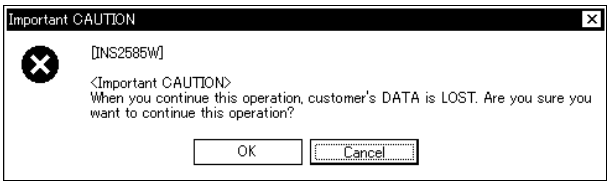
Select (CL) [OK] in response to the confirmation message
“<Important CAUTION>
This Operation is new installation. If you want to Non-disruptive Install or Non-disruptive de-install, terminate this procedure by [CANCEL] button and select INSTALL-CHANGE CONFIGURATION menu.”.



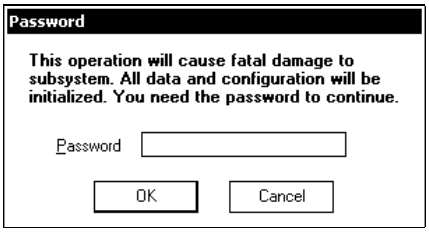

Select (CL) [OK] in response to the confirmation message
“<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF. Are you sure you want to continue this operation?”.



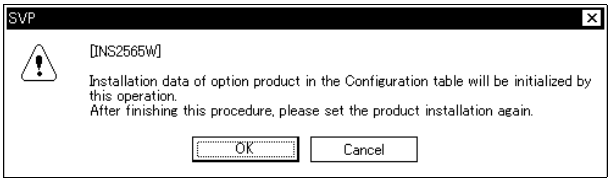

Select (CL) [OK] in response to the confirmation message
“<Important CAUTION>
When you continue this operation, customer’s DATA is LOST. Are you sure you want to continue this operation?”.




Enter the password and select (CL) [OK].
Entering the password is required in this operation. Please call Technical Support Center for asking it.

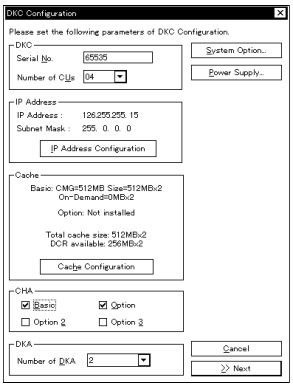



Select (CL) [OK] in response to the confirmation message “Installation data of option product in the Configuration table will be initialized by this operation. After finishing this procedure, please set the product installation again.”.



(10) <Define configuration information>

Define the device configuration information from 'DKC Configuration' according to the device configuration worksheet.
After defining all input items is completed, select (CL) [>>Next].
If [Cache Configuration] is selected, the 'Cache Configuration' dialog box is displayed. (See step (10-2))
If [System Option] is selected, the 'System Option' dialog box is displayed. (See step (10-3))
If [Power Supply] is selected, the 'Redundant Power Supply' dialog box is displayed. (See step (10-4))
If [Cancel] is selected, this procedure is terminated.

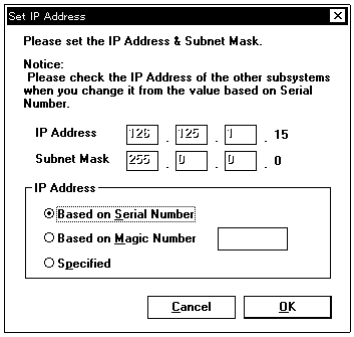



Note: Please does not change "Number of CUs" for the DKC exchange.

---

(10-1) <Setting IP Address>

Set the IP Address and Subnet Mask in the 'Set IP Address Configuration' dialog box.
After setting up all items, select (CL) [OK].
Go to step (10).
Selecting (CL) [Cancel] returns you to step 4.

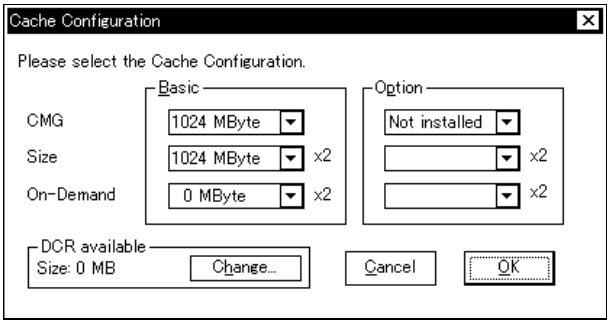



---

(10-2) <Define Cache Capacity>

Define the cache capacity in the 'Cache Configuration' dialog box.
When the [Change...] is selected (CL), the 'DCR Available Size' dialog box is displayed. (Refer to Step (10-2-1))
(See SSD Optional Function Section)

Note: For Single Cabinet Model, Option is not displayed.

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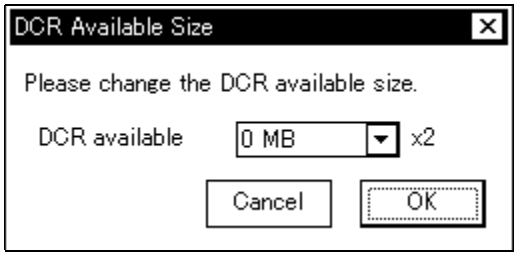
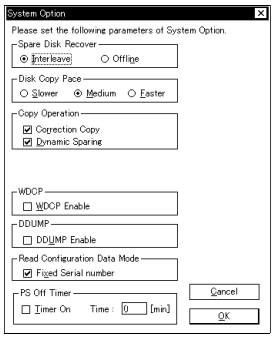
(10-2-1) <Setting DCR size>

Set the DCR Available size in the 'DCR Available Size' window and select (CL) the [OK] button.
Return to Step (10-2).



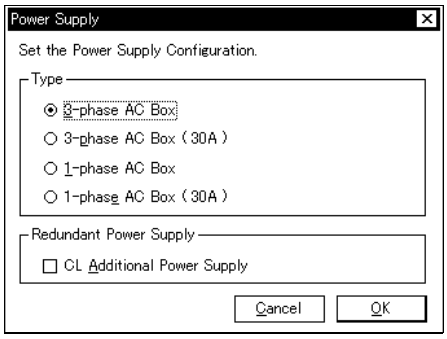
(10-3) <Define System Options>

Define the device configuration information from 'System Option Setup' according to the device configuration worksheet.
After setting up all items, select (CL) [OK].
Go to step (10).
Selecting (CL) [Cancel] returns you to step (10)



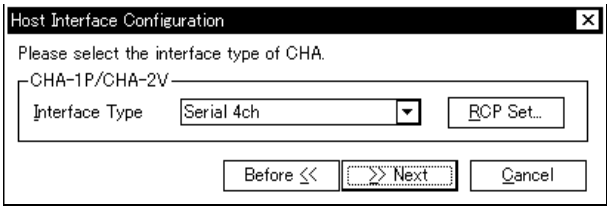

(10-4) <Set Power Supply>

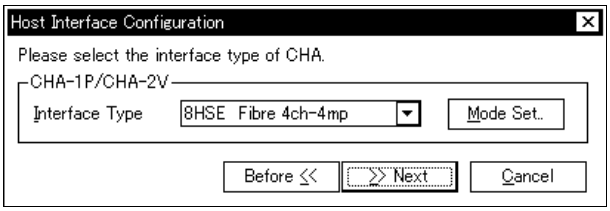
Set the power supply information in the 'Redundant Power Supply' dialog box.
After setting up all items, select (CL) [OK].
Go to step (10).
Selecting (CL) [Cancel] returns you to step (10).




(11) <Setting channel type>

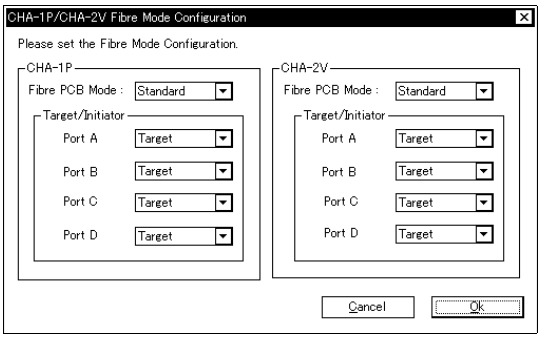
Set the subsystem configuration information in the 'Host Interface Configuration' window according to the subsystem configuration information work sheet.
When [Fibre *] is selected, select (CL) [Mode Set...] and go to step (11-1).
Select (CL) [Next>>]. Go to step (11-6).
When [Serial 4 ch] is selected, select (CL) [RCP Set...] and go to step (11-2).
(Execute the operation above for all the channels installed.)
After all the items are set, select (CL) [>>Next]. Go to step (12).
When [Before<<] is selected (CL), the screen is returned to the previous one.



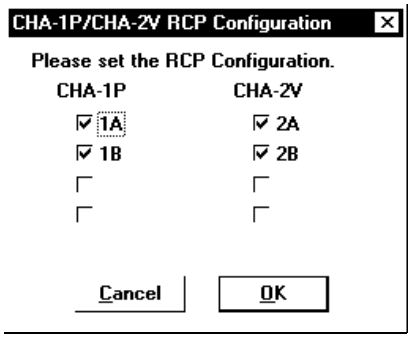
(11-1) <Setting Fibre Mode>

Set the Fibre Mode in the 'Fibre Mode Configuration' dialog box.
After setting up all items, select (CL) [OK].
Go to step (11).
Selecting (CL) [Cancel] returns you to step (11).



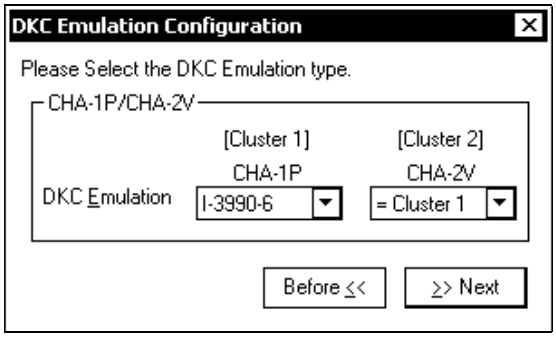

(11-2) <Setting RCP port>

Select (CL) the port defined as the RCP port and select (CL) [OK].
Go to step (11-3).
When [Cancel] is selected (CL), the routine returns to step (11).



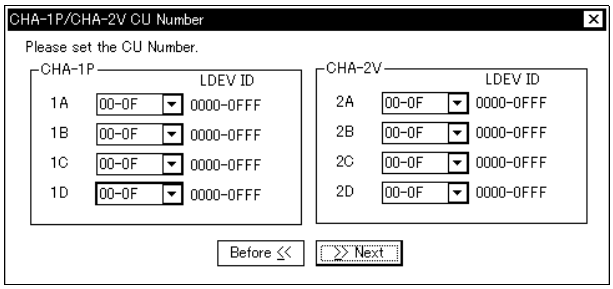

(11-3) <Setting DKC emulation type>

Set the subsystem configuration information in the 'DKC Emulation Configuration' window according to the subsystem configuration information work sheet.
After the setting is completed, select (CL) [>>Next]. Go to step (11-4).
When [Before<<] is selected (CL), the routine returns to step (11).




(11-4) <Setting CU number>

CU number is displayed.
After the setting is completed, select (CL) [>>Next]. Go to step (11-5).
When [Before<<] is selected (CL), the routine returns to step (11-3).



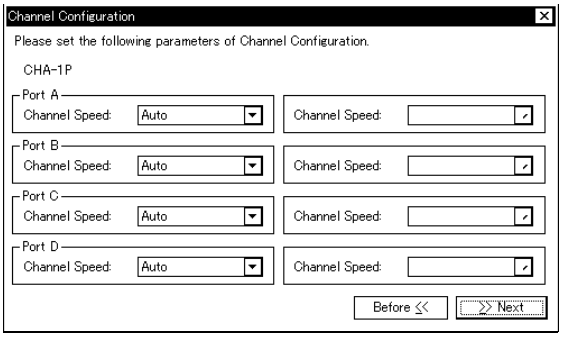
(11-5) <SVP message>

Select (CL) [OK] in response to the confirmation message “xxxxx”.
Returns to step (11).


---

(11-6) <Setting Channel>

Set the ‘Channel Speed’.
After setting up, select (CL) [>>Next].
Go to step (12).
When [Before<<] is selected (CL), the routine returns to step (11).

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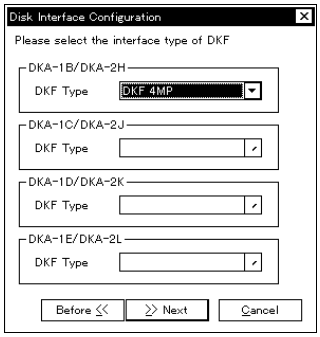
(12) <Set DKF type>

Set the ‘DKF Type’.
After setting up, select (CL) [>>Next].
Go to step (13).
When [Before<<] is selected (CL), the routine returns to step (11).

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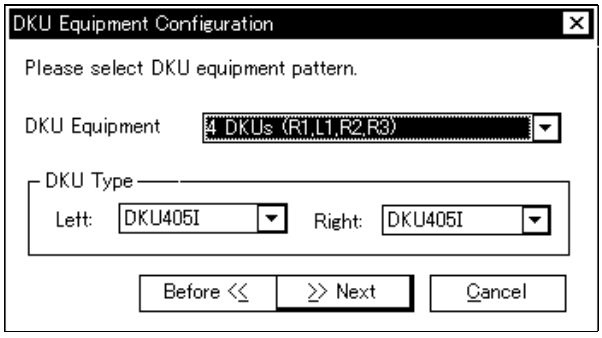
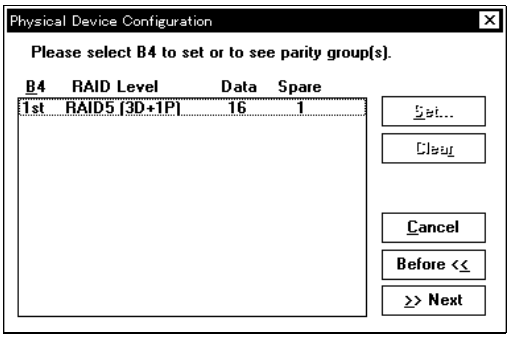
(13) <Set DKU Equipment>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].



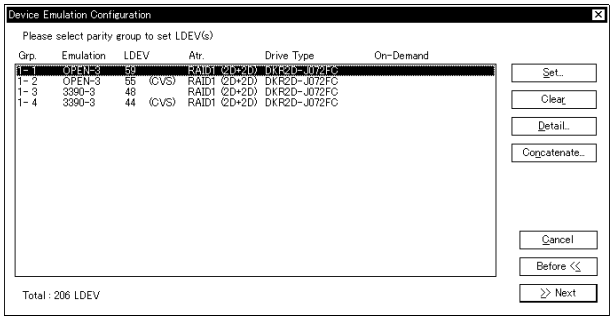
(14) <Install Drive Configuration Information>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].



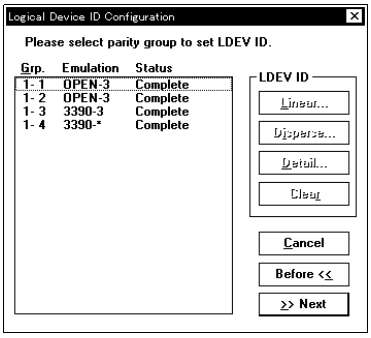

(15) <Define Device Emulation>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].



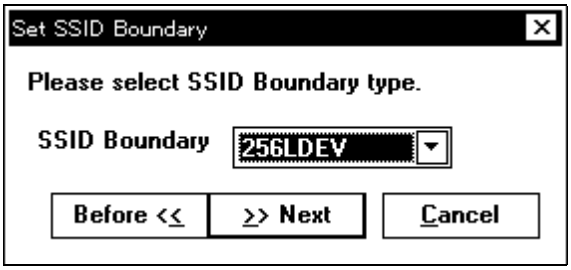

(16) <Define LDEV ID>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].



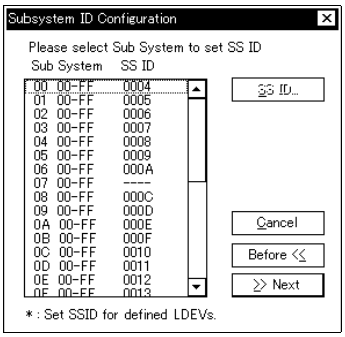

(17) <Define Subsystem ID Boundary>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].



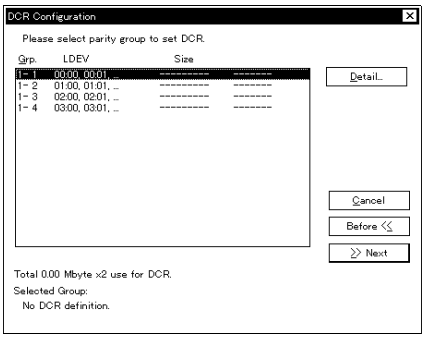
(18) <Define Subsystem ID>

Please select [>>Next] without changing the setting.
Selecting (CL) [Before<<] returns you to the previous screen.
This procedure is terminated by selecting (CL) [Cancel].




(19) <Defining DCR>

(19-1) Select (CL) a parity group having LDEV(s) for which the DCR is to be set on the “DCR Configuration” screen and press (CL) the [Detail...] button.

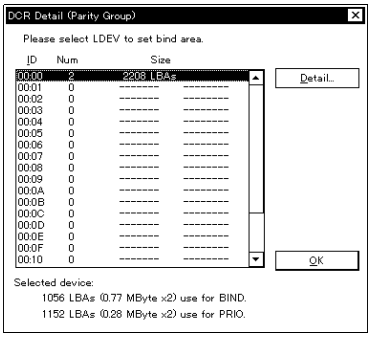



Total cache memory size which DCR area use is displayed.

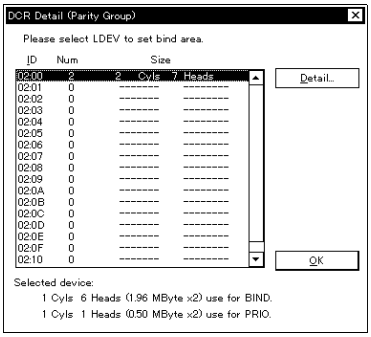
If the selected parity group has a DCR area, the BIND size and to PRIO size are displayed under the “DCR Configuration” screen.

After setting above, select (CL) [>>Next].

This procedure is terminated by selecting (CL) [Cancel].



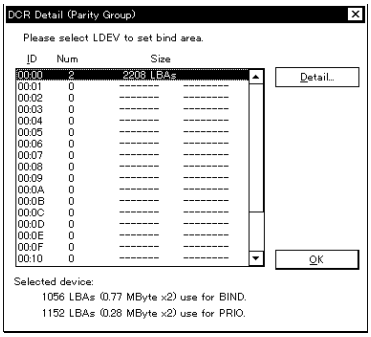

(For open system)



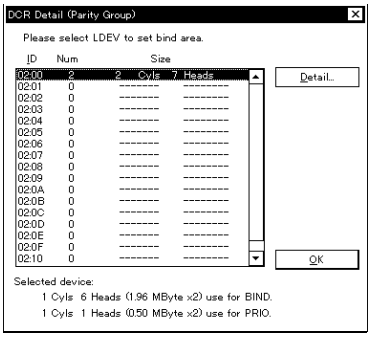

(For Mainframe system)

(19-2) Select (CL) an LDEV where the DCR is to be set on the "DCR Detail (Parity Group)" screen and press (CL) the [Detail...] button.

If the selected LDEV has a DCR area, the BIND size and the PRIO size are displayed under the "DCR Detail (Parity Group)" screen.

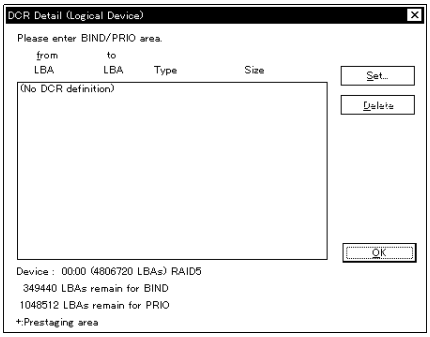



(For open system)

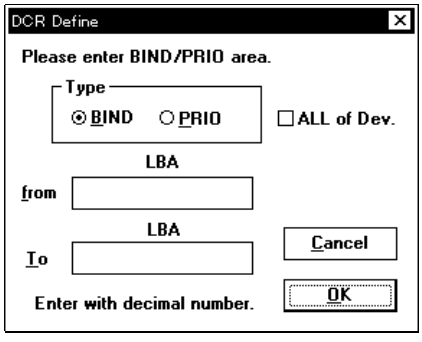


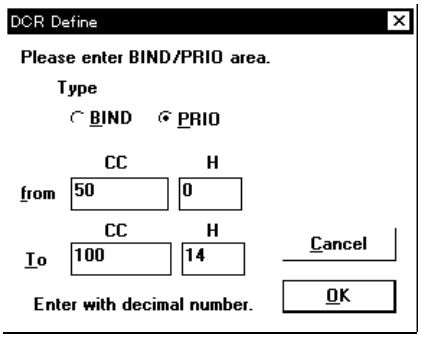

(For Mainframe system)

(19-3) Confirm the LDEV size and the number of slots allowed to be set for each type on the "DCR Detail (Logical Device)" screen. Press (CL) the [Set...] button to set the DCR area.

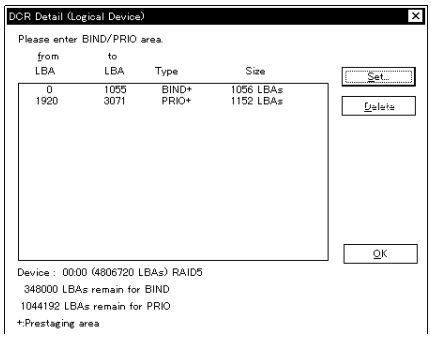



(19-4) Enter the type, starting cylinder number, starting head number, ending cylinder number, and ending head number (for Mainframe system. Refer to the screen on the right.) or the type, starting LBA, and ending LBA (for open system. Refer to the screen on the left.) on the "DCR Define" screen and select (CL) [OK].
For open system, all items are allowed to be set.

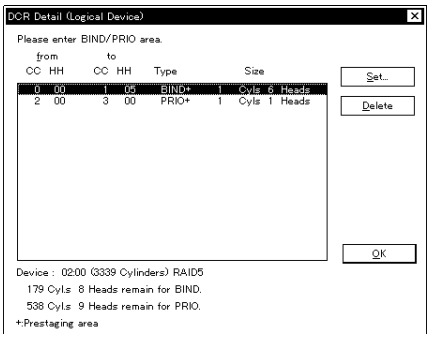


(19-5) When the screen is returned to the “DCR Detail (Logical Device)” screen, the entrance result is displayed.

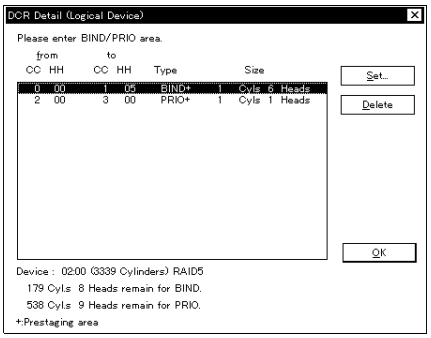



(Foe open system)




(For Mainframe system)

(19-6) When an item in the list box is selected (CL) and the [Delete] button is pressed (CL) on the “DCR Detail (Logical Device)” screen, the DCR setting is deleted. When the setting is completed, press (CL) [OK].

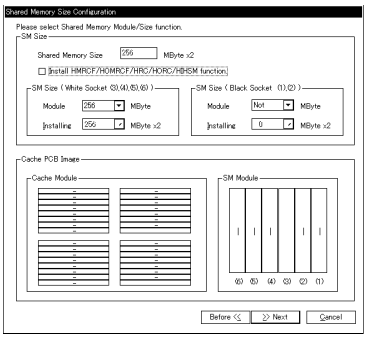



(19-7) If you want to set other LDEV(s) in the parity group which you selected, repeat steps (19-2) to (19-6) for the LDEV(s).

(19-8) If you want to set other LDEV(s) in other parity group, repeat steps (19-1) to (19-6) for the LDEV(s).

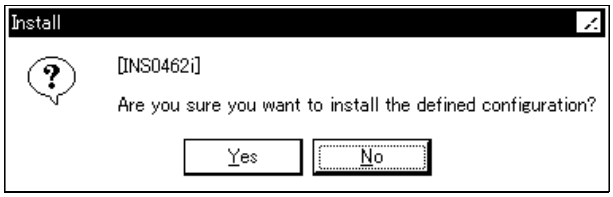
(20) <Define Shared Memory Size>

Define the shared memory module size in the 'Shared Memory Size Configuration' dialog box.
Select (CL) [>>Next].
This procedure is terminated by selecting (CL) [Cancel].

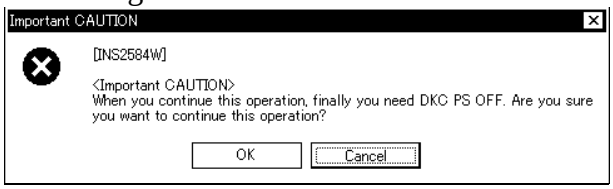



(21) <Include configuration information>

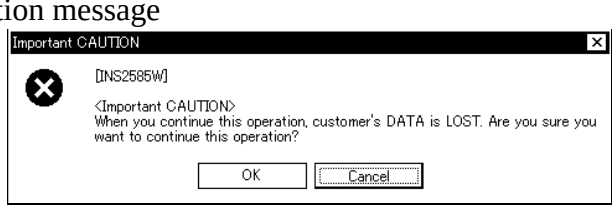
(21-1) Select (CL) [Yes] in response to the confirmation message "Are you sure you want to install the defined configuration?". "Wait..." is displayed, then "Turn off DKC subsystem" is displayed.
Selecting (CL) [No] suppresses the configuration inclusion processing and terminates the installation procedure.



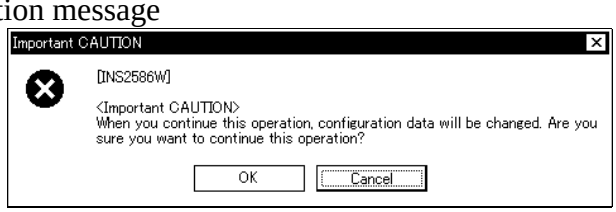

(21-2) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, finally you need DKC PS OFF. Are you sure you want to continue this operation?".



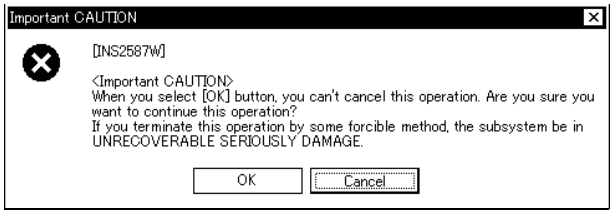

(21-3) Select (CL) [OK] in response to the confirmation message "<Important CAUTION>
When you continue this operation, customer's DATA is LOST. Are you sure you want to continue this operation?".



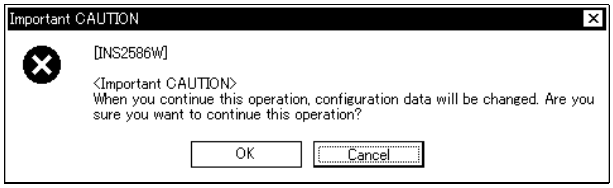
(21-4) Select (CL) [OK] in response to the confirmation message
"<Important CAUTION>
When you continue this operation, configuration data will be changed. Are you sure you want to continue this operation?".




(21-5) Select (CL) [OK] in response to the confirmation message
"<Important CAUTION>
When you select [OK] button, you can't cancel this operation. Are you sure you want to continue this operation?
If you terminate this operation by some forcible method, the subsystem be in UNRECOVERABLE SERIOUSLY DAMAGE.".

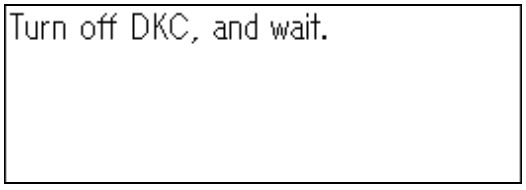



(21-6) Select (CL) [OK] in response to the confirmation message
"<Important CAUTION>
You must not RE-BOOT SVP(PC).".




(22) <Power off DKC P/S>
Make sure that "Turn off DKC, and wait." is displayed and perform the power-off procedure from the DKC maintenance panel.

After a while, "Wait..." will be displayed.

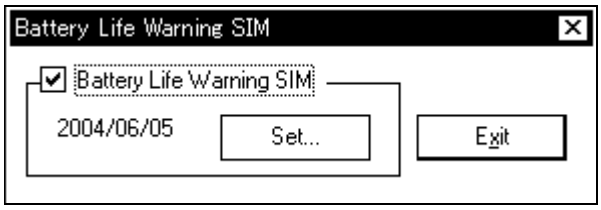


(23)

This step allows the contents of the SVP HD to be loaded into SM and FM.
When this procedure is completed, “Battery Life Warning SIM” is displayed.

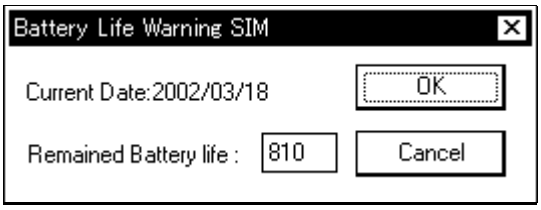
(24)

Select [Set...] applying the check to ‘Battery Life Warning SIM’.



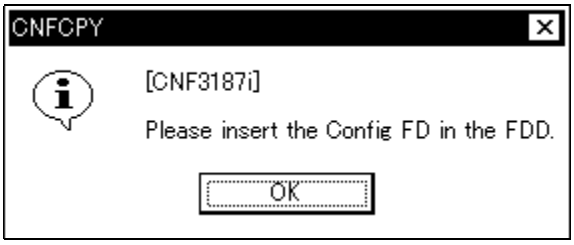

(25)

Select (CL) [OK] after inputting the remainder days by reporting on warning SIM.



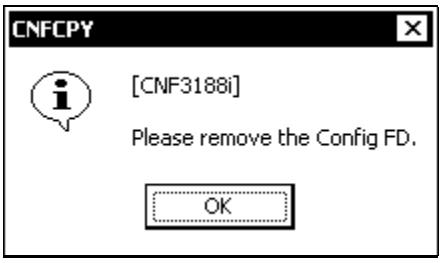

(26)

Insert the configuration FD into FDD, and select (CL) [OK].



(27)

When this procedure is completed, the message “Please remove the Config FD.” is displayed.
Remove the FD, and then select (CL) [OK].

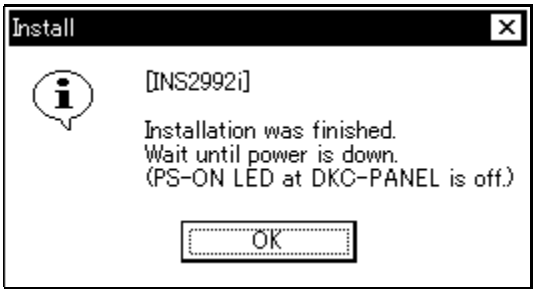


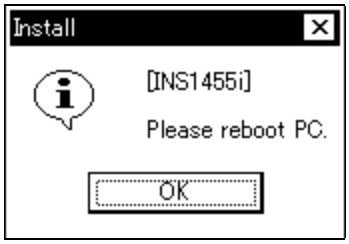

(28)

After making sure that the DKC power is turned off, select (CL) [OK] in response to “Installation was finished.”.
Select (CL) [OK] in response to “Please reboot PC.”.
The initial Install screen is restored.

Note: SVP power will not turn off or reboot even when DKC is powered off.

Go to INST02-550 step (31).




(29)

Please execute the compulsion recovery of LDEV after DKC reactivates.
Go to SVP02-730.