DKC REPLACEMENT PROCEDURE SECTION

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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. • The switching is not allowed if a Correction copy or Drive copy is running. • The switching is not allowed if a Verify function is running. • Micro-code version must be changed to supported version.	If the restriction is violated, the FD is not supported. An SVP pre-check error will occur.
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.	

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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. • LDEV/PDEV/FSW, drive port can be Blocked.	If the restriction is violated, the FD is not supported. An SVP pre-check error will occur.
2	Cache configuration	• Cache capacity must be the same as that of the old subsystem. • 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. • 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.
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.

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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.
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.

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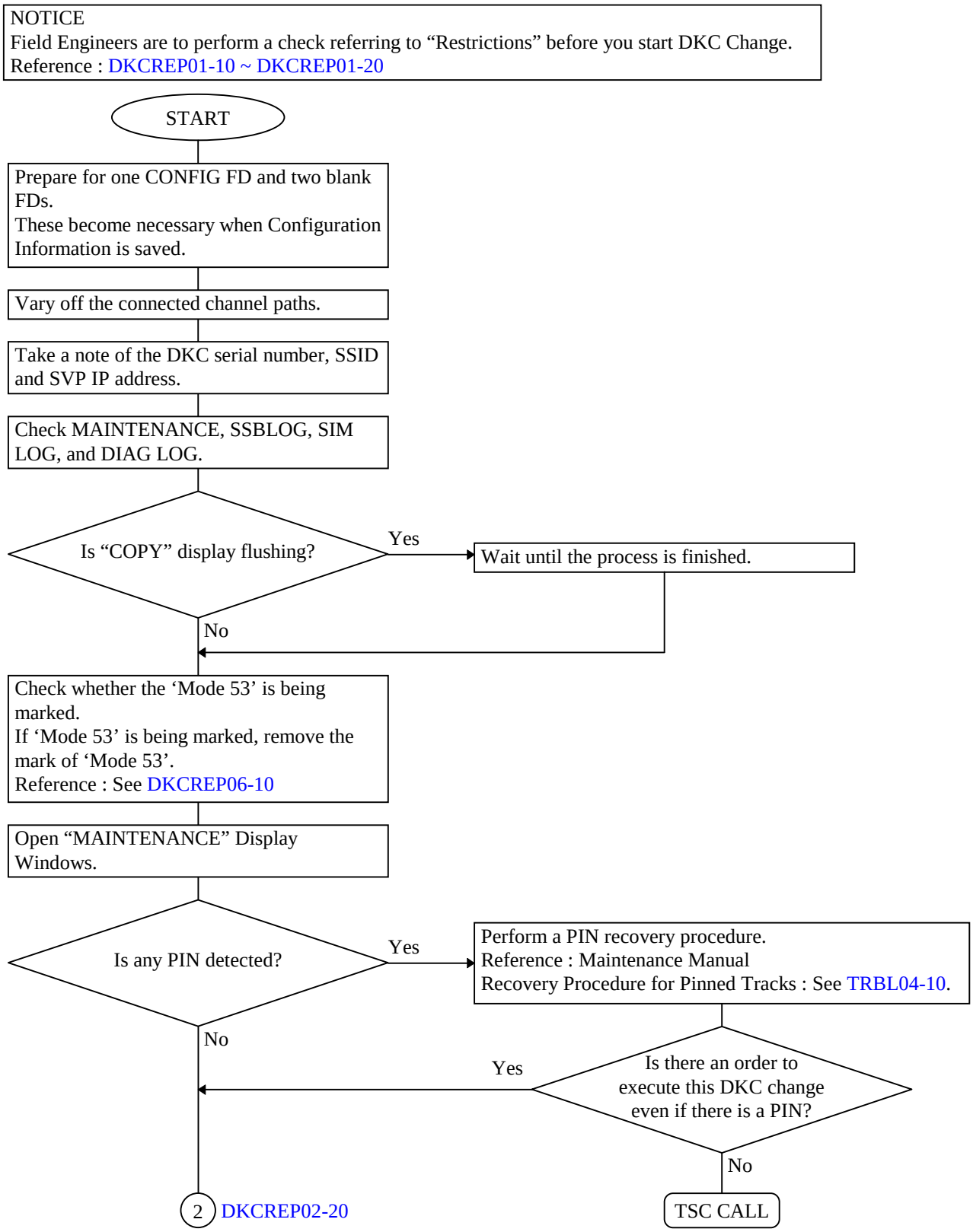
2 DKC Change flowchart



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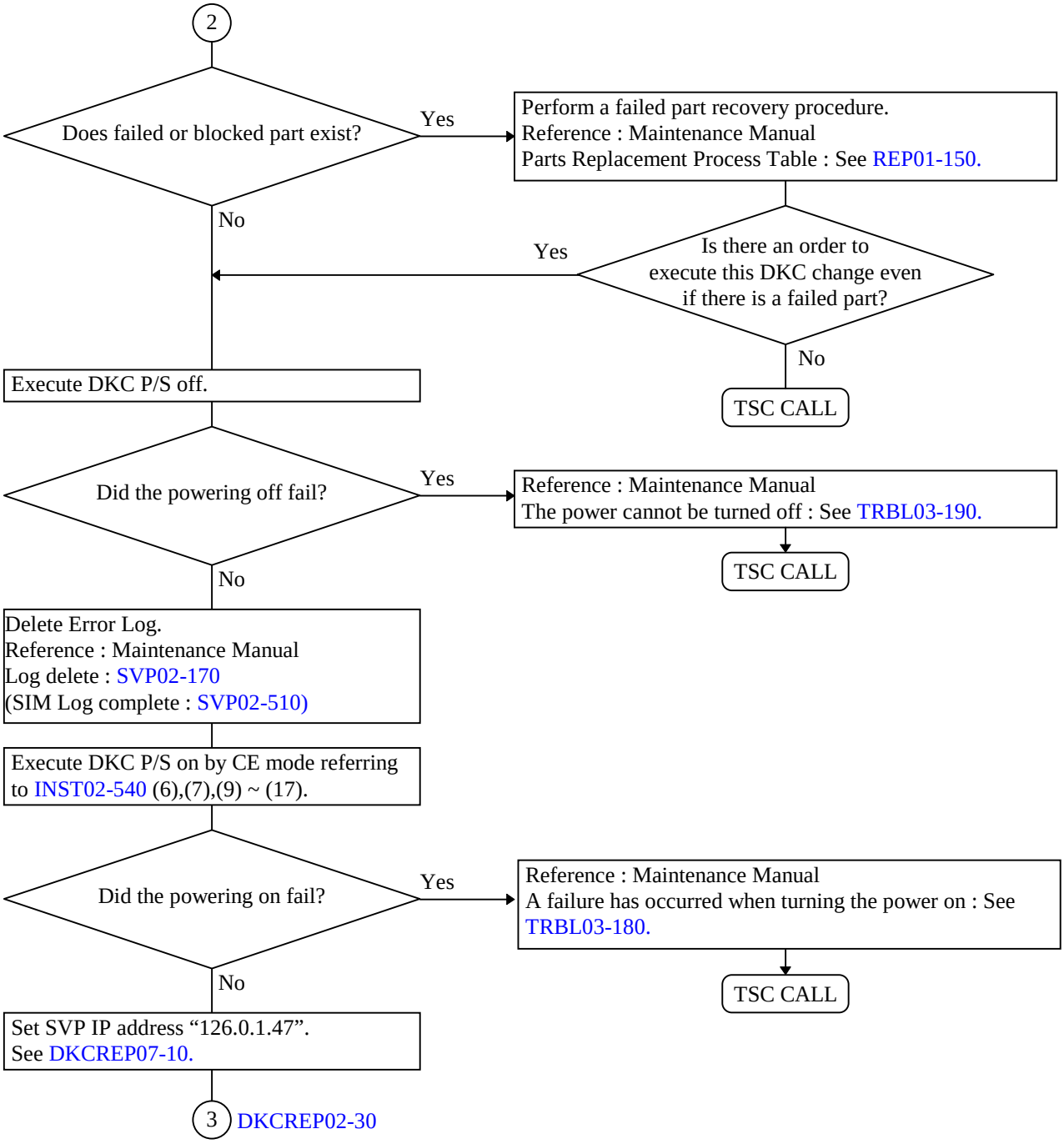

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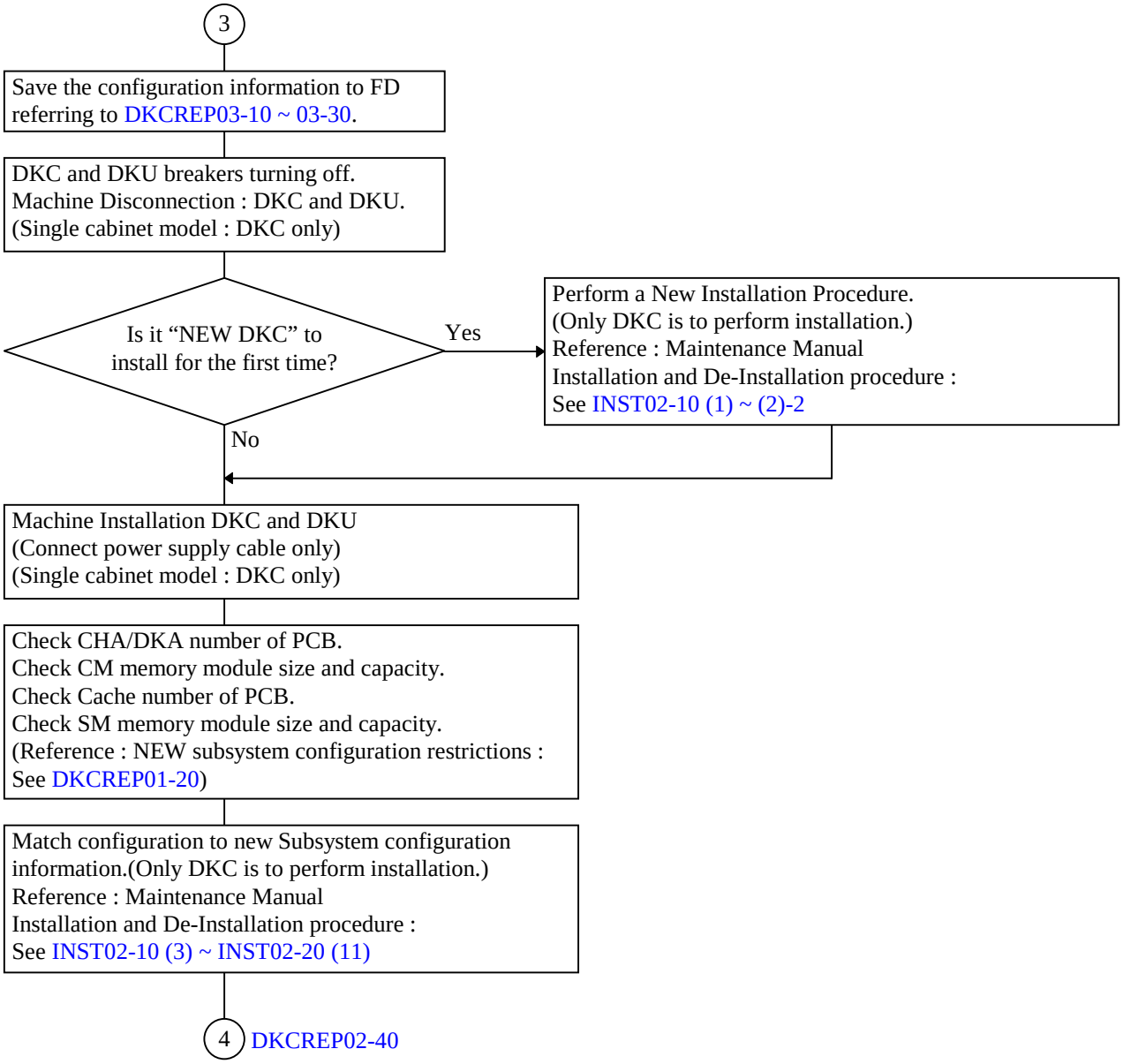

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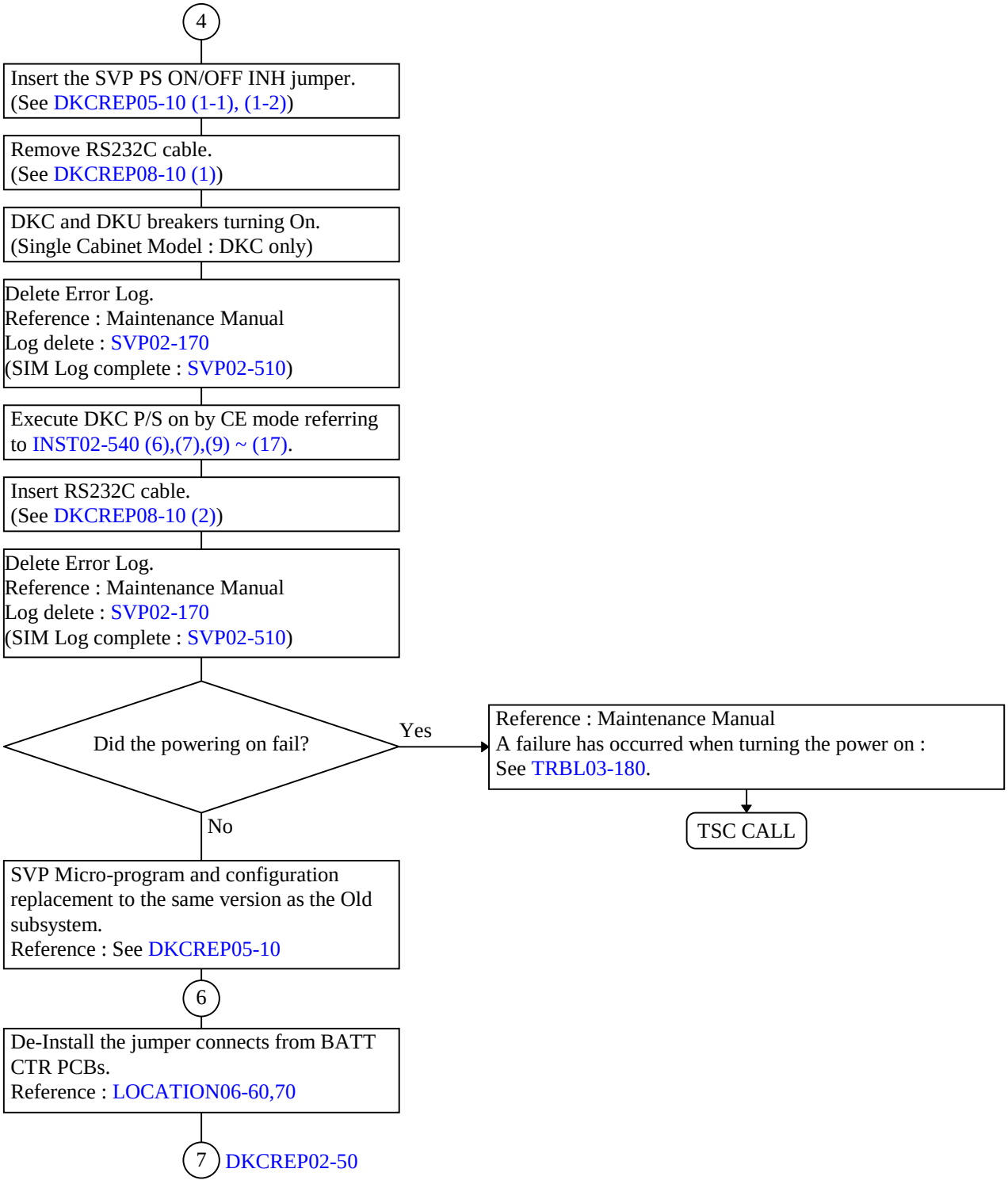

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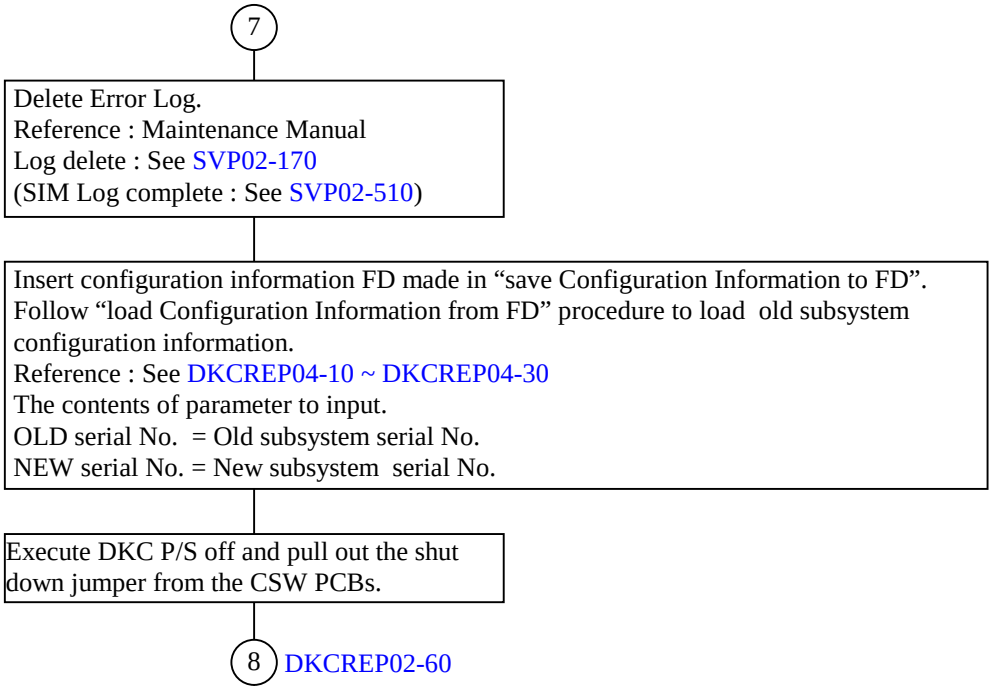

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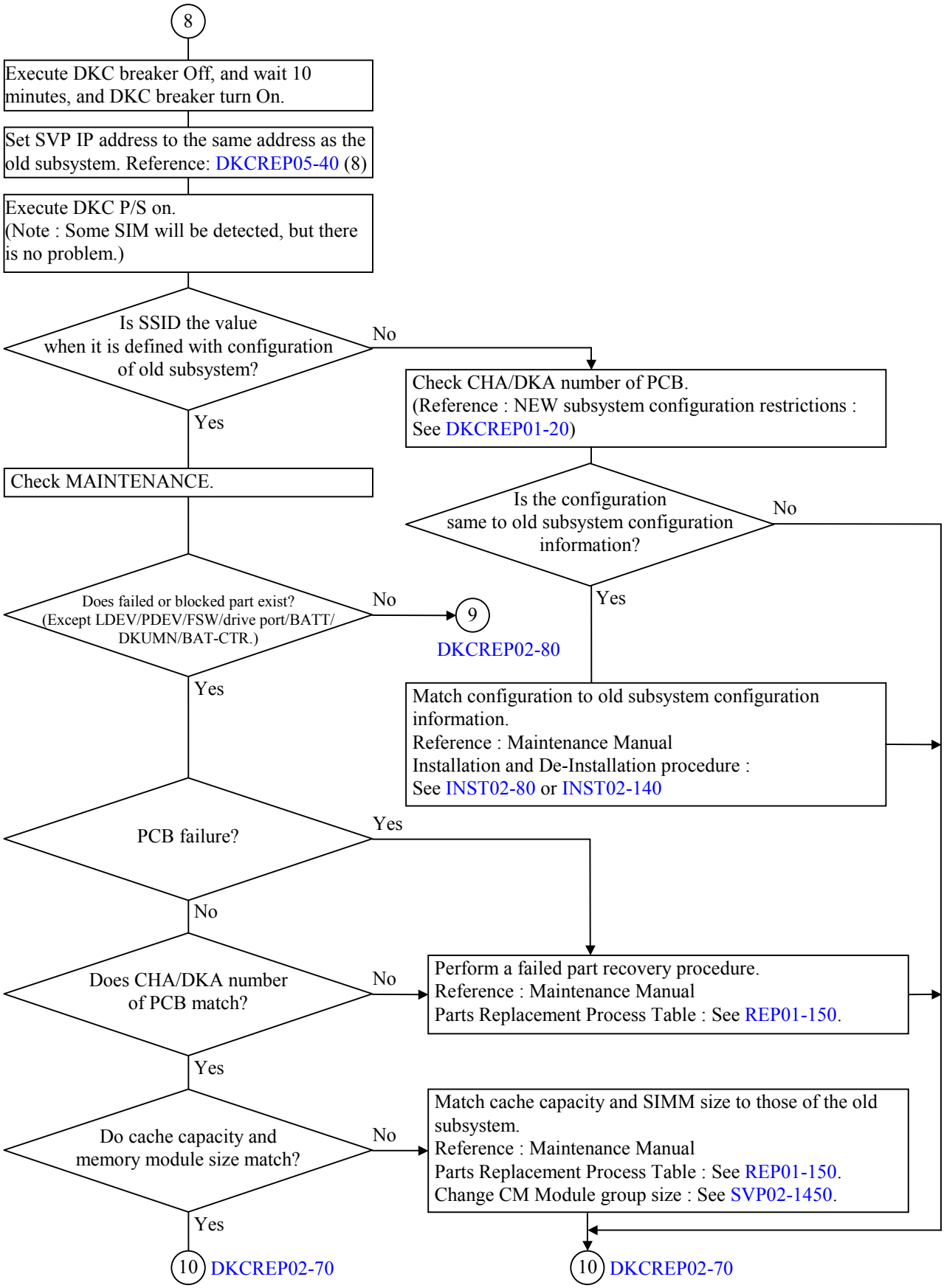

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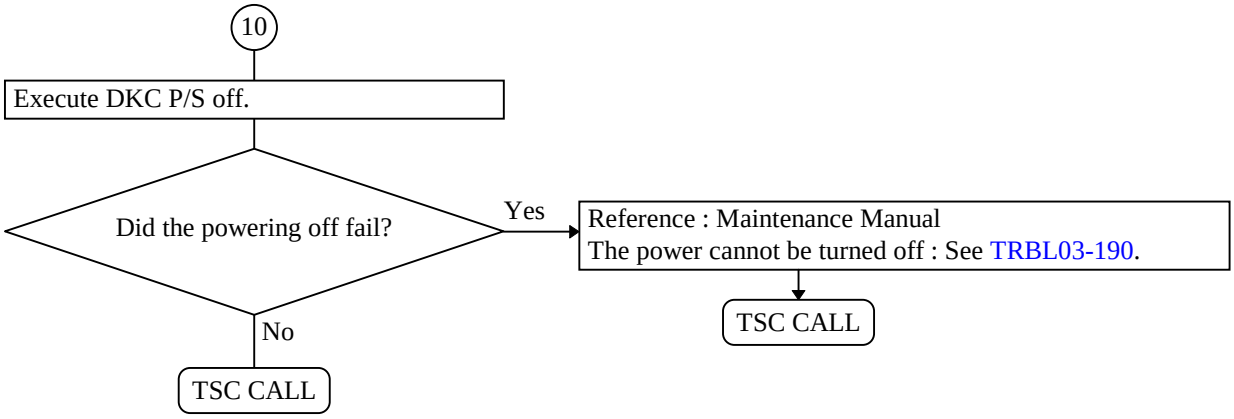

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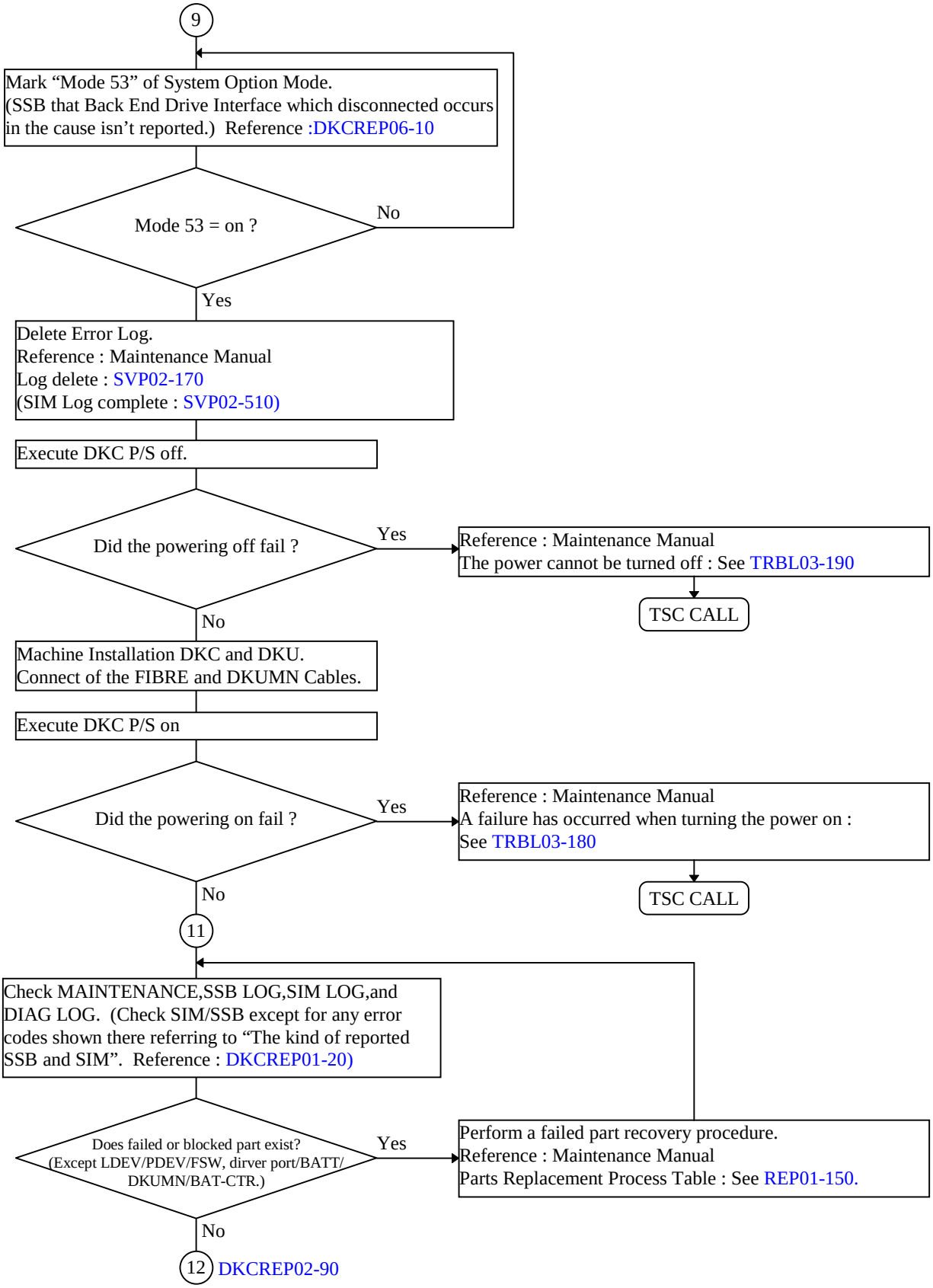

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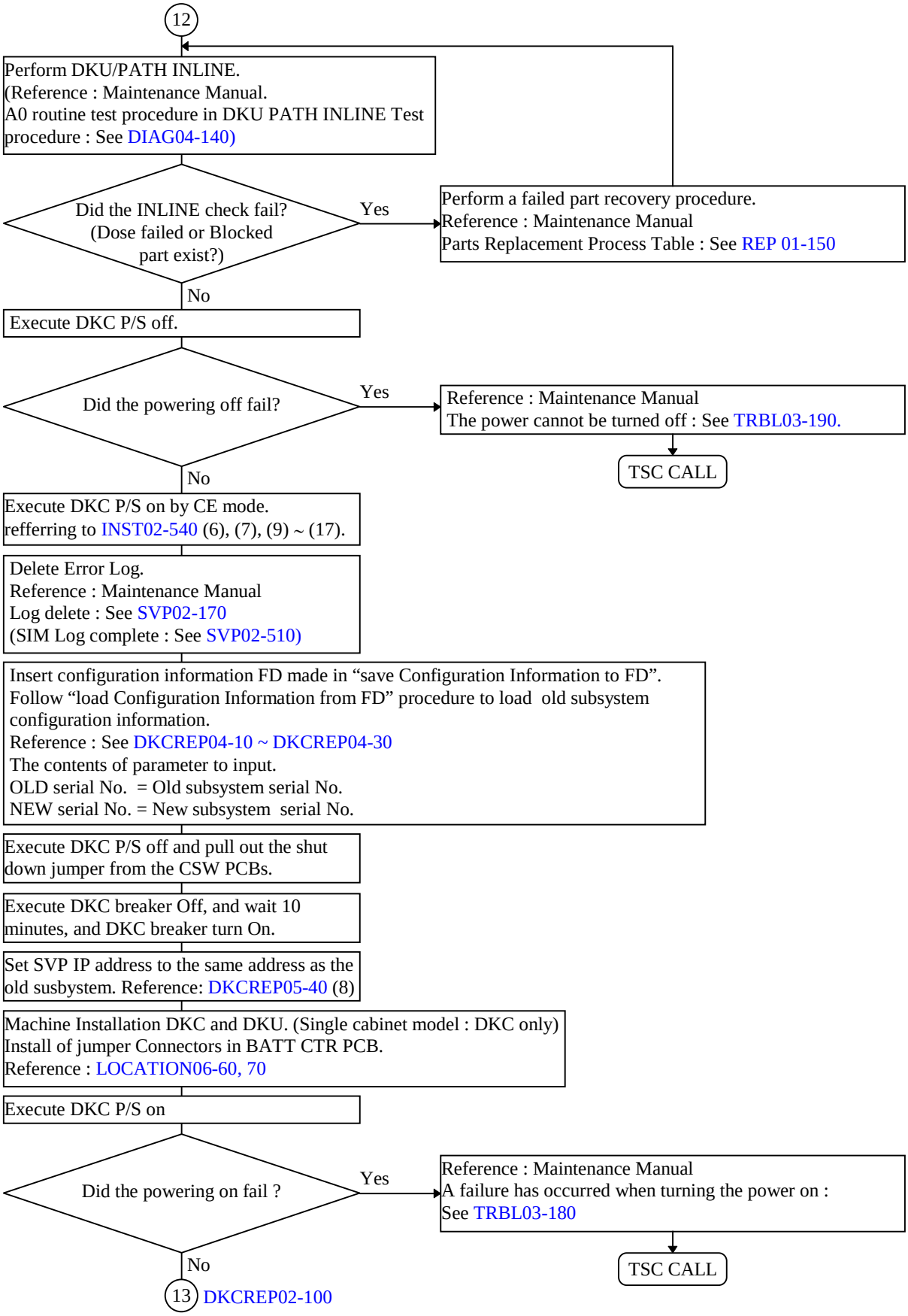

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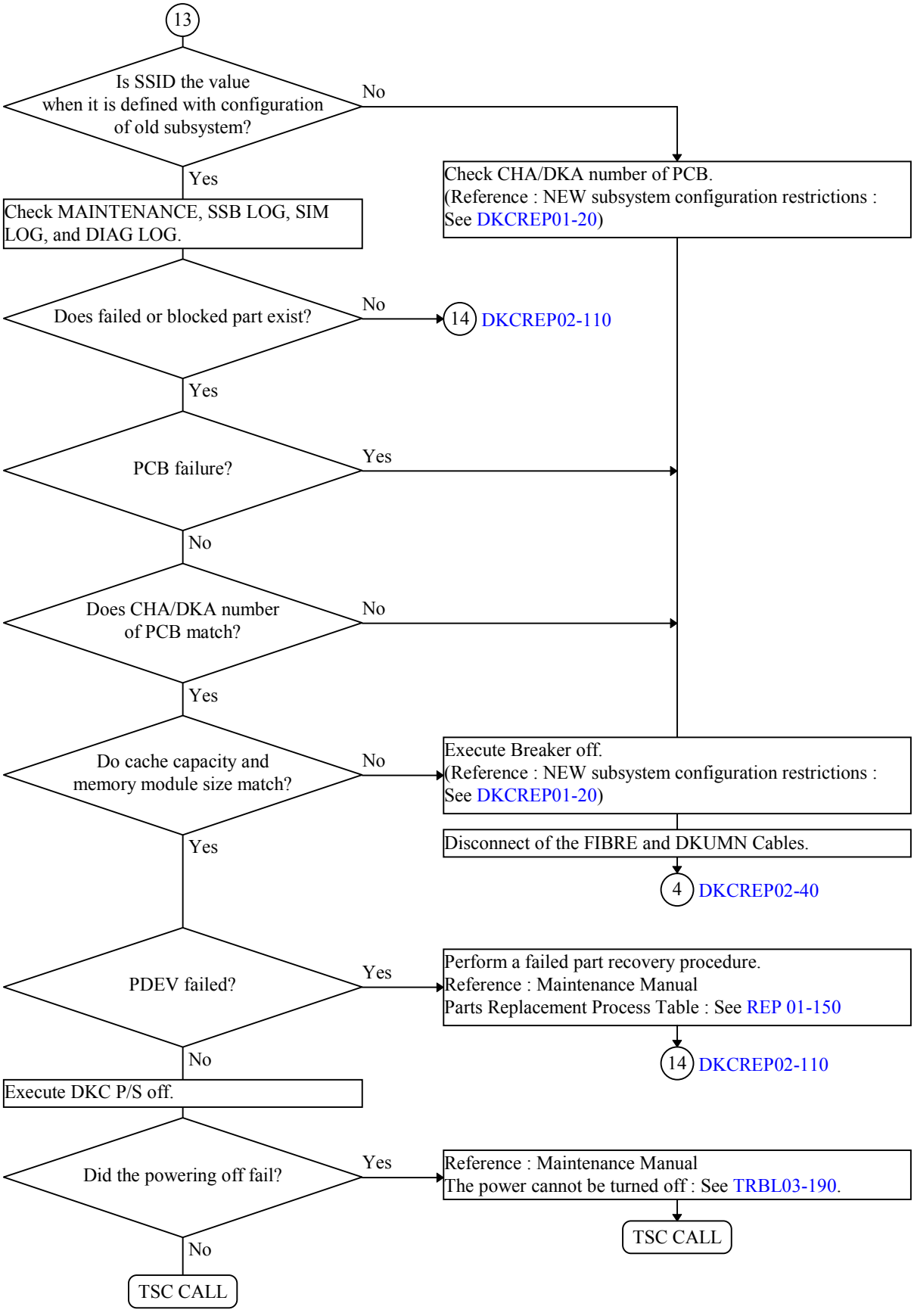

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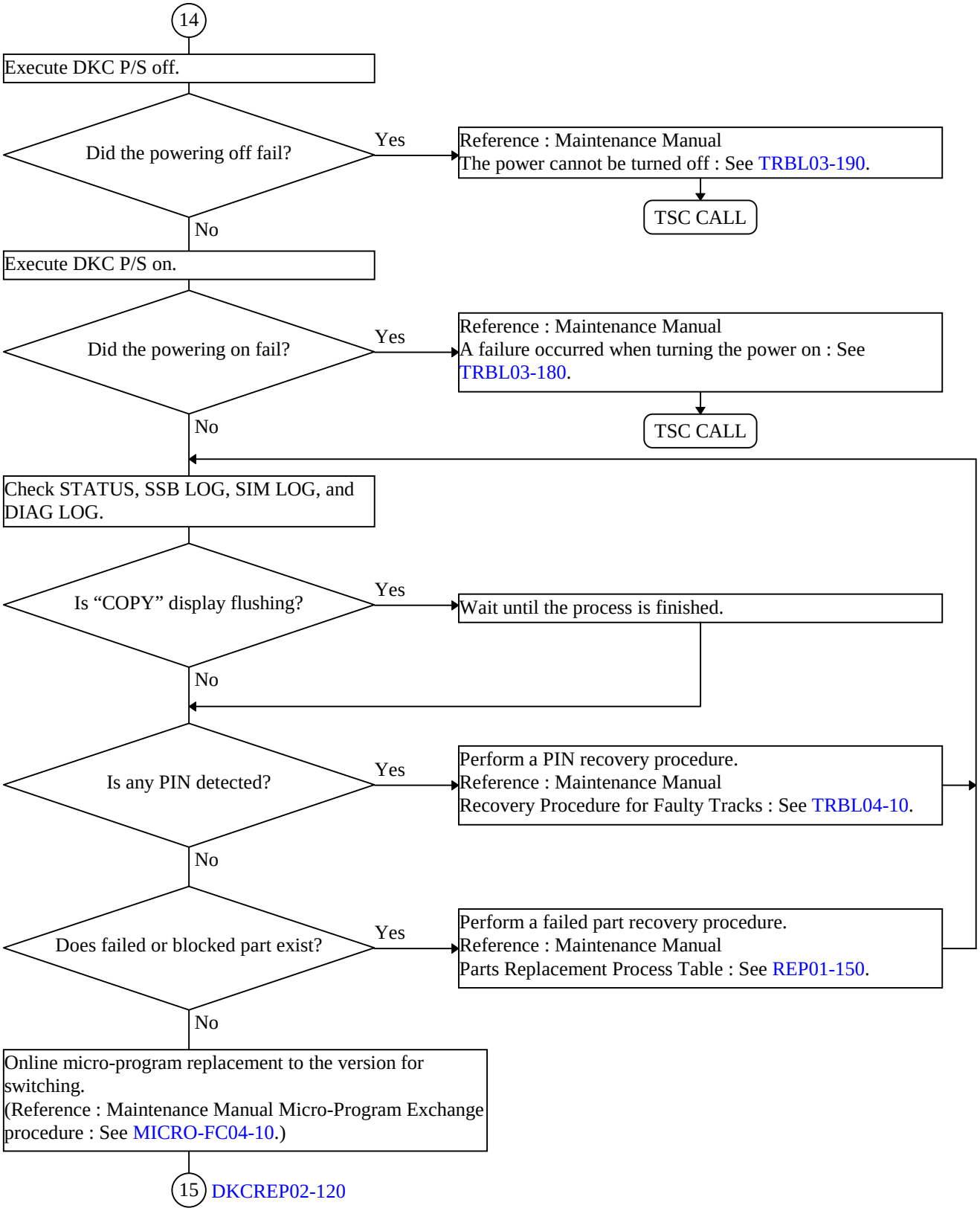

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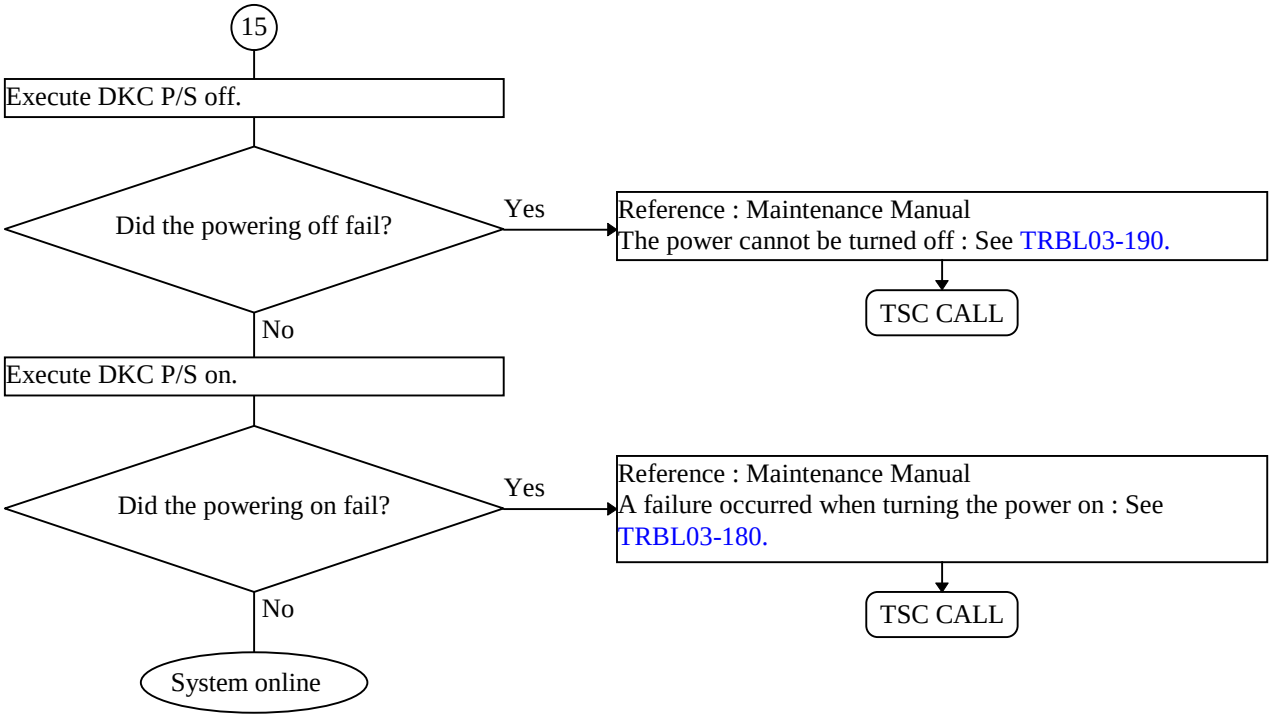

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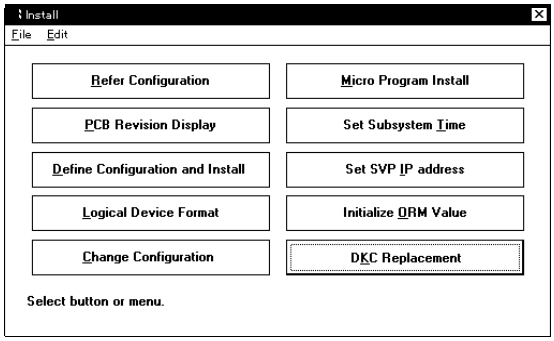
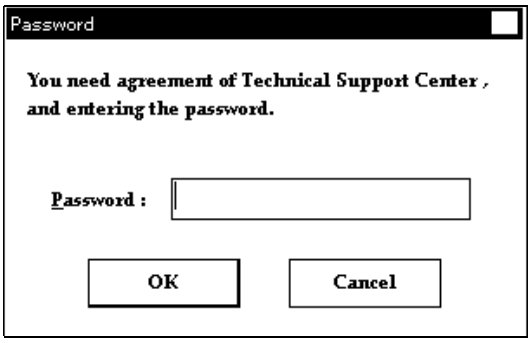
3 Procedure of saving configuration information to FD for DKC Change

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

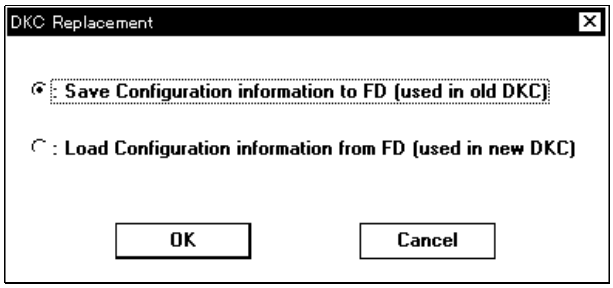
(2) <DKC REPLACEMENT>
Select (CL) [DKC REPLACEMENT].



(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.



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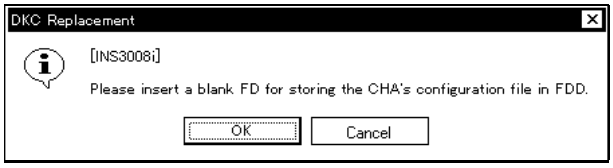
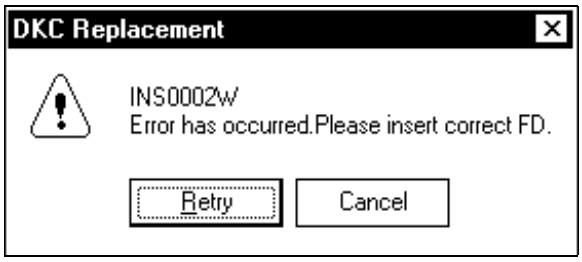
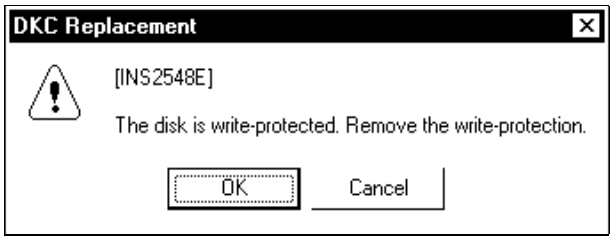
(5) Insert a blank FD for CHA in FDD.
Then select (CL) [OK].
Next, please insert a blank FD for DKA.
Then select (CL) [OK].



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



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



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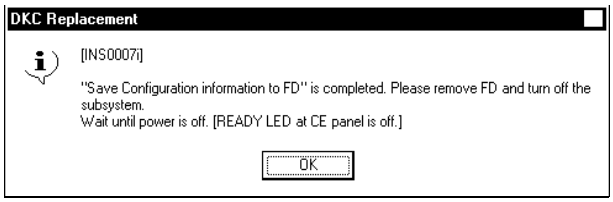
(6) Remove FD and turn off the subsystem.
Wait until power is off.
Then select (CL) [OK].



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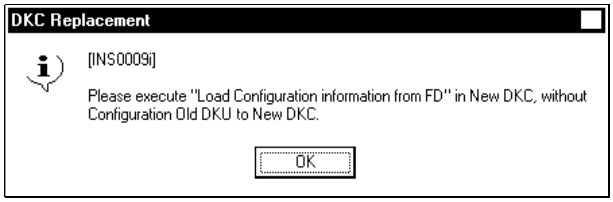
(7) Select(CL) [OK].
Note: Do not connect the old DKU to the new DKC.



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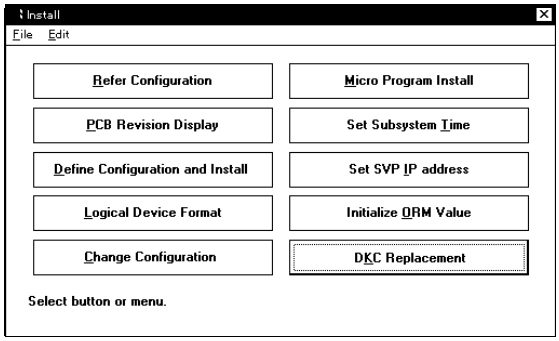
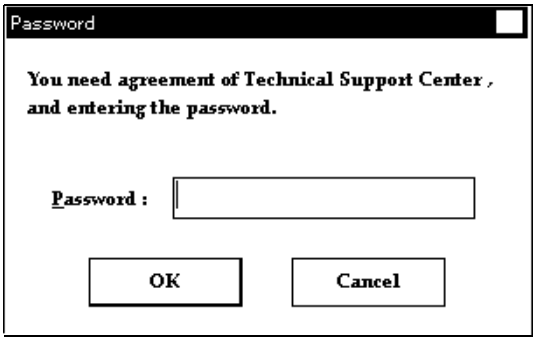
4 Procedure of loading Configuration information from FD (used in new DKC)

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

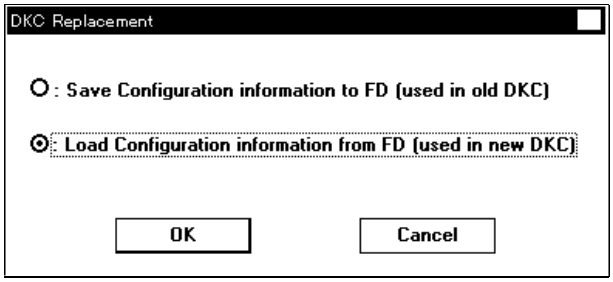
(2) <DKC REPLACEMENT>
Select (CL) [DKC REPLACEMENT].



(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.



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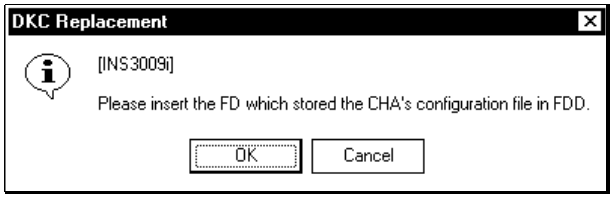
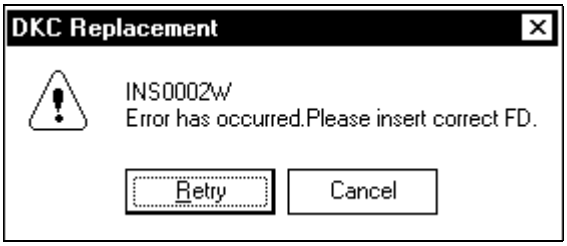
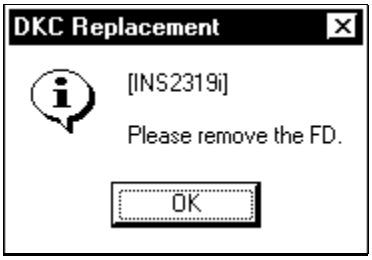
(5) Please insert the FD which stored the CHA's configuration file in FDD.
Then select (CL) [OK].
Next, please insert the FD for DKA.
Then select (CL) [OK].



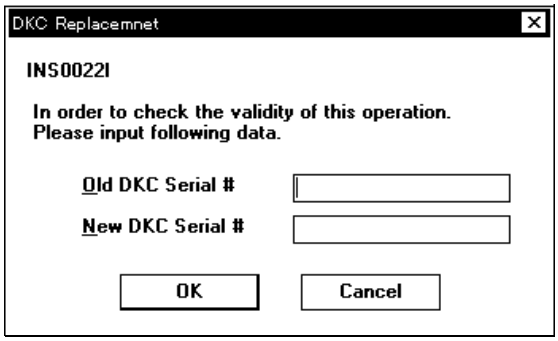
<Error case>
Please insert correct FD.
After select (CL) [Retry].



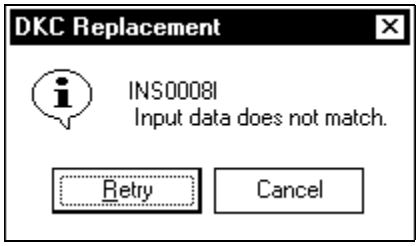
(6) Please remove the FD from FDD.
Then select (CL) [OK].



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



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



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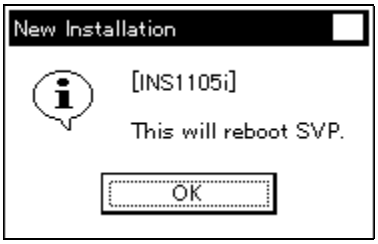
(8) Select (CL) [OK].



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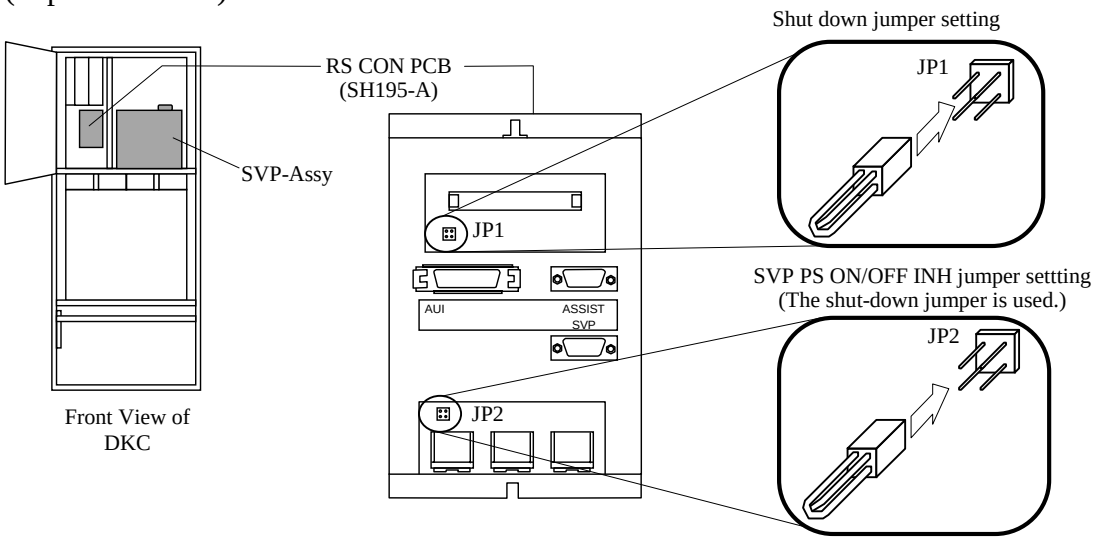
5 Procedure of Micro-program replacement to SVP

(1) Restart the computer in MS-DOS mode.

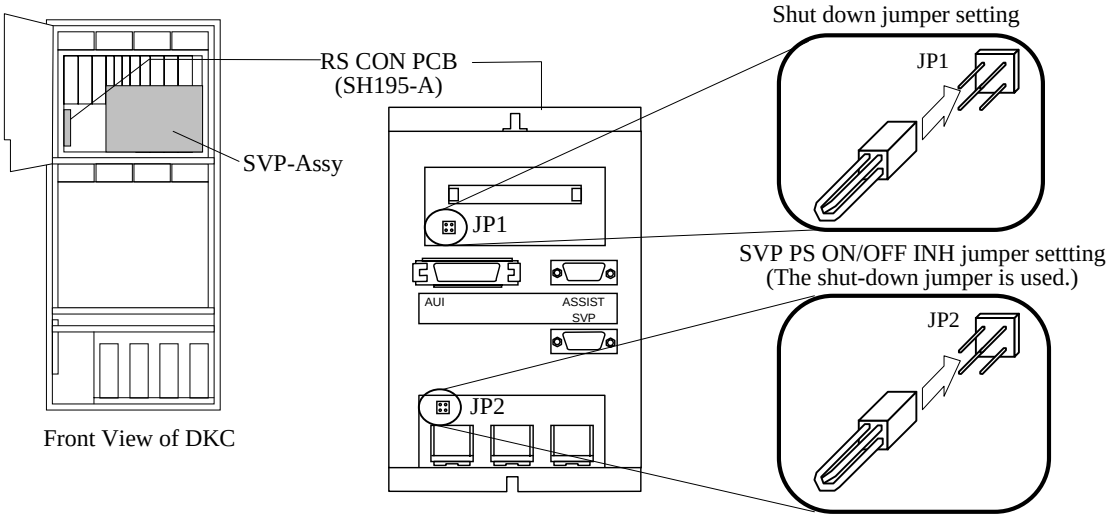
NOTE : Check the SVP PS ON/OFF INH jumper JP2 on the RS CON PCB. If the jumper is set execute this procedure from DKCREP05-15 (1-3).

(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.
(Separate Model)



(Single Cabinet Model)



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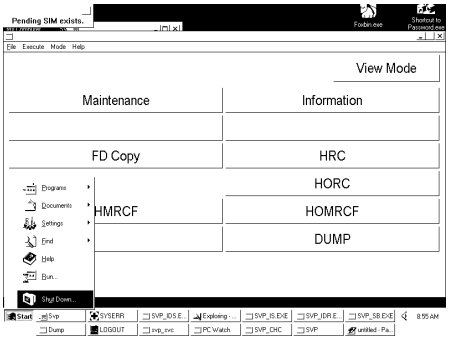
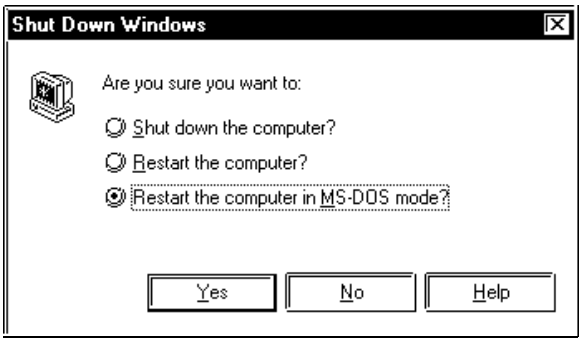
(1-3) Shut Down Windows.
Select (CL) [Start].
Select (CL) [Shut Down].



(1-4) Restart the SVP in MS-DOS mode.
Select “Restart the computer in MS-DOS mode” from Shut Down Windows, and select (CL) [Yes] in response to “Are you sure you want to:”.



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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) Input “e:\setcopy.bat” in ‘DOS prompt’, and press the [Enter] key.

(2-3) The message “SET CONFIG FD!” is displayed.
Insert the CONFIG FD into the FDD. Then press the [Enter] key.

(2-4) The message “Remove Config FD!!” is displayed.
Remove the CONFIG FD from FDD. Then press the [Enter] key.

(2-5) The message “Set Copy normal end!!” is displayed.

(3) Copy the SVP information to HD

(3-1) Input “e:\pcconf.bat” in ‘DOS prompt’ and press the [Enter] key.

(3-2) The message “"pcconf95" change START!!” is displayed, when the message “"pcconf95" change END!!” is displayed, file copy, is complete.

(3-3) Press the [Enter] key.

(4) Removing the SVP PS ON/OFF INH jumper plug
Remove the SVP PS ON/OFF INH jumper plug which has been attached according to step (1-2).

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(5) Reboot the SVP
Reboot the SVP by [Alt], [Ctrl], and [Del] keys simultaneously.

(6) Installation of Program group and item

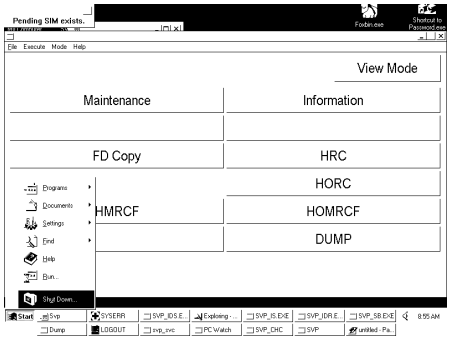
(6-1) Select (CL) [Start]. Select (CL) [Run...].

(6-2) Input “e:\setup.exe” on ‘open’, and select (CL) [OK]. The ‘SVP’ and the ‘Startup’ groups will be made.

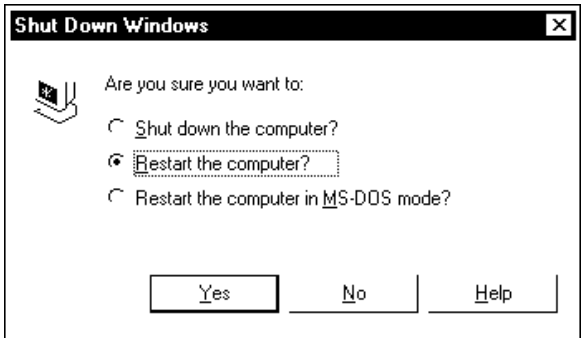
(6-3) Remove the CD-ROM from the CD-ROM drive.

(7) Reboot the SVP

(7-1) Shut Down Windows.
Select (CL) [Start].
Select (CL) [Shut Down].



(7-2) Reboot the SVP
Select (CL) “Restart the computer” from Shut Down Windows, and select (CL) [Yes] in response to “Are you sure you want to:”.



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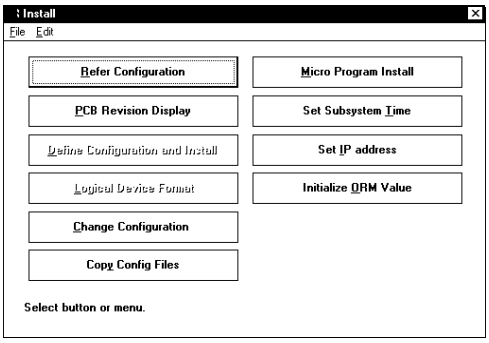
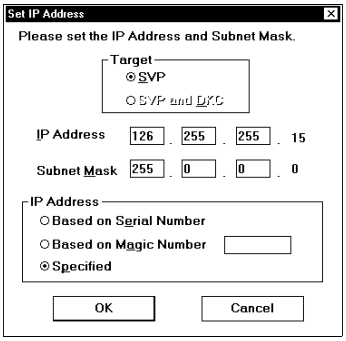
(8) Set IP address of SVP.

(8-1) Open [Install].
Select (CL) [Install] from ‘SVP’.

(8-2) Select [Set Subsystem IP Address...].
Select (CL) [Set IP Address...] from ‘Install’.



(8-3) 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].



(8-4) “Please insert config FD in FDD.” is displayed.
Do not insert ‘CONFIG FD’ in FDD, Select (CL) [OK].

(8-5) “Backup is failed Please insert correct FD.” is displayed.
Select (CL) [Cancel].

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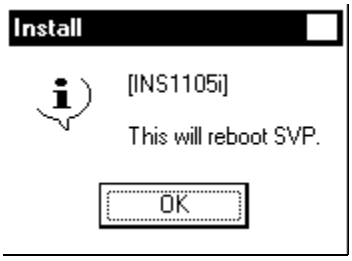
(8-6) Check SVP reboot.
Select (CL) [OK].



(9) SIM Complete
See SVP02-510.

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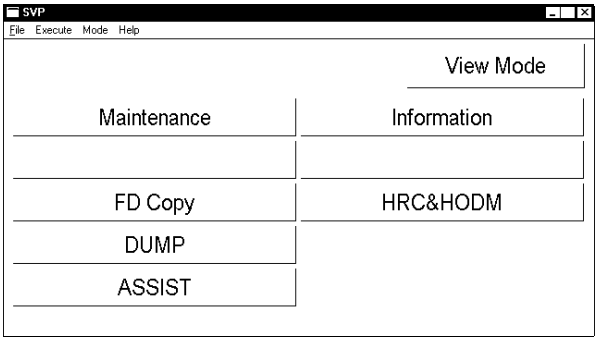
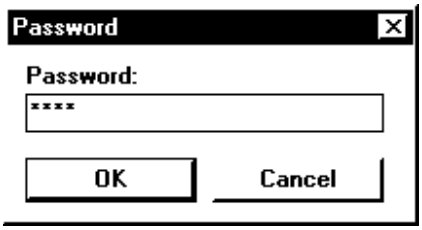
6 Procedure of setting System Option Mode

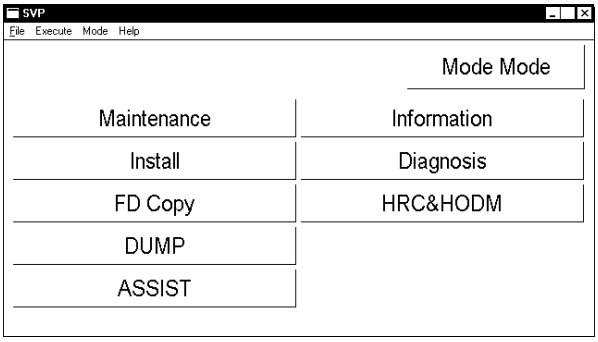
(1) Make it on the screen which shows SVP in the following.



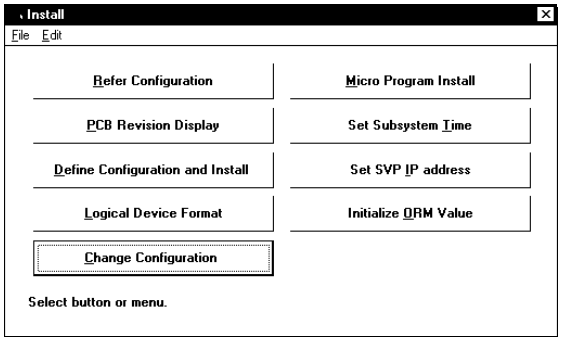
(2) Put down the following keys at one to input in the password and. Select (CL) [OK].
"[CTL]", "[Shift]" and "[M]".



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



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



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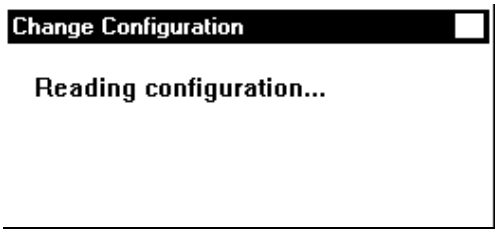
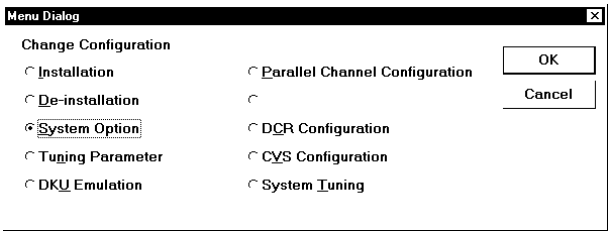
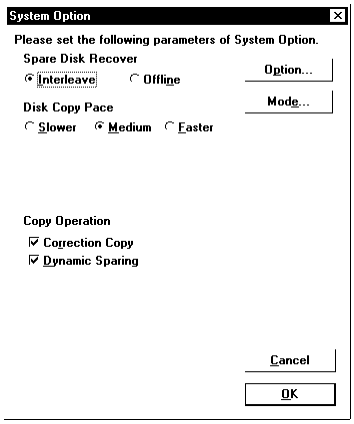
(5) “Reading configuration...” is displayed.



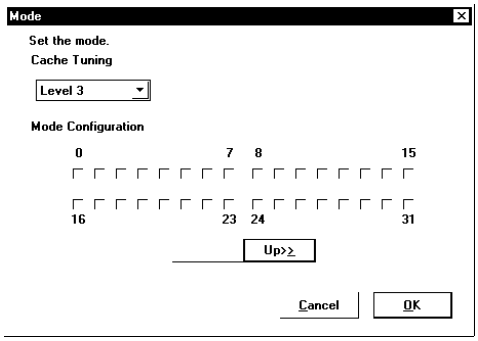
(6) Select (CL) the [System Option] and select (CL) [OK].



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



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



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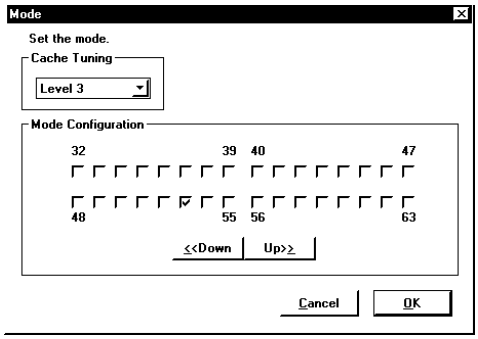
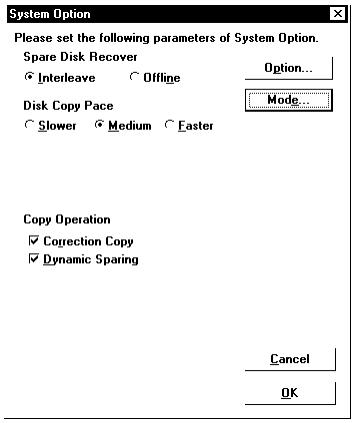
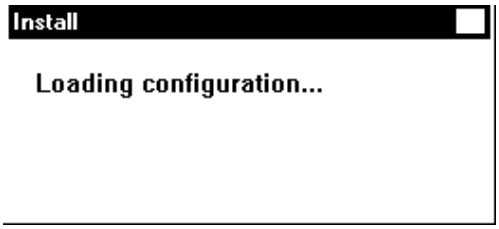
(9) Select (CL) the [Mode 53] and select (CL) [OK].



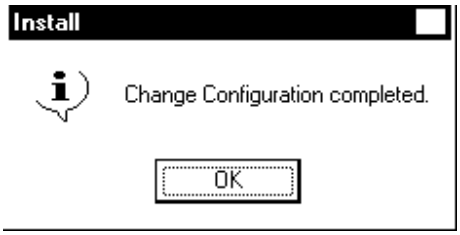
(10) Select (CL) [OK].



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



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



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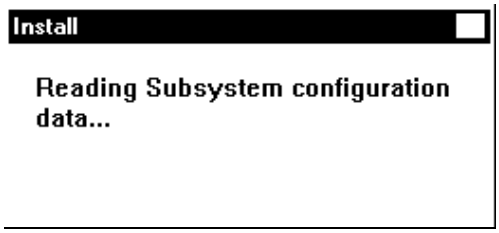
(13) “Reading Subsystem configuration data...” is displayed.



(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].

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(16) 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.

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

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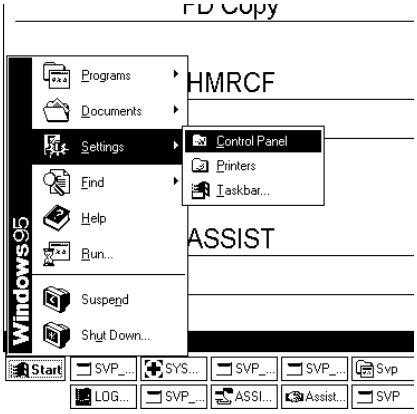
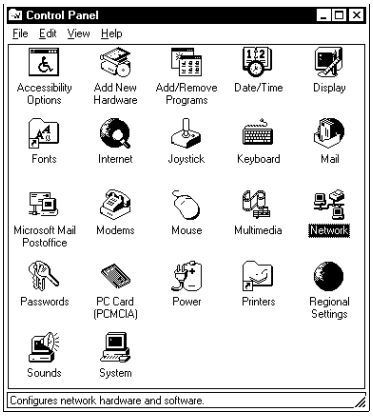
7 Procedure of setting IP address

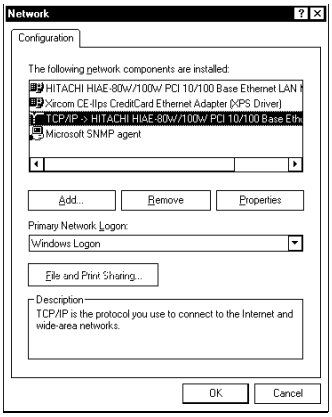
(1) Open Control Panel.
Select (CL) [Start].
Select (CL) [Settings].
Select (CL) [Control Panel].



(2) Open Net Work.
Select (DC) [Network].



(3) Open TCP/IP.
- Windows95
  Select (DC) “TCP/IP -> HITACHI HIAE-80W/100W PCI...”.
- Windows98
  Select (DC) “TCP/IP -> Intel 8255x-based Ethernet Adapter (10/100)”.



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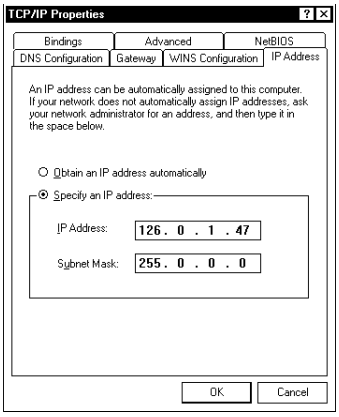
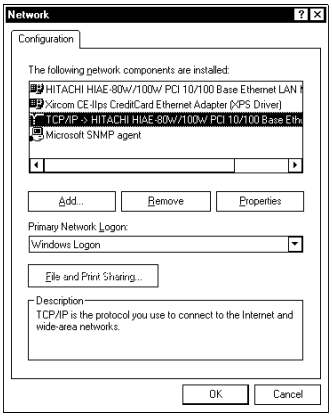
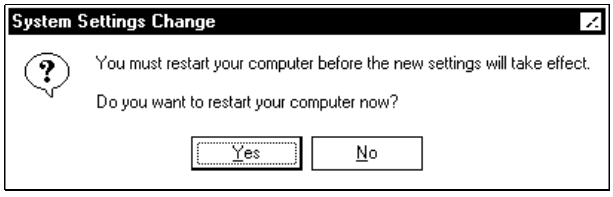
(4) Set IP address.
Select (CL) [IP Address], and select (CL) “Specify an IP Address”, and set “126.0.1.47” for IP address, and select (CL) [OK].



(5) Close TCP/IP.
Select (CL) [OK].



(6) Reboot SVP.
Select (CL) [Yes] and then SVP reboot automatically.



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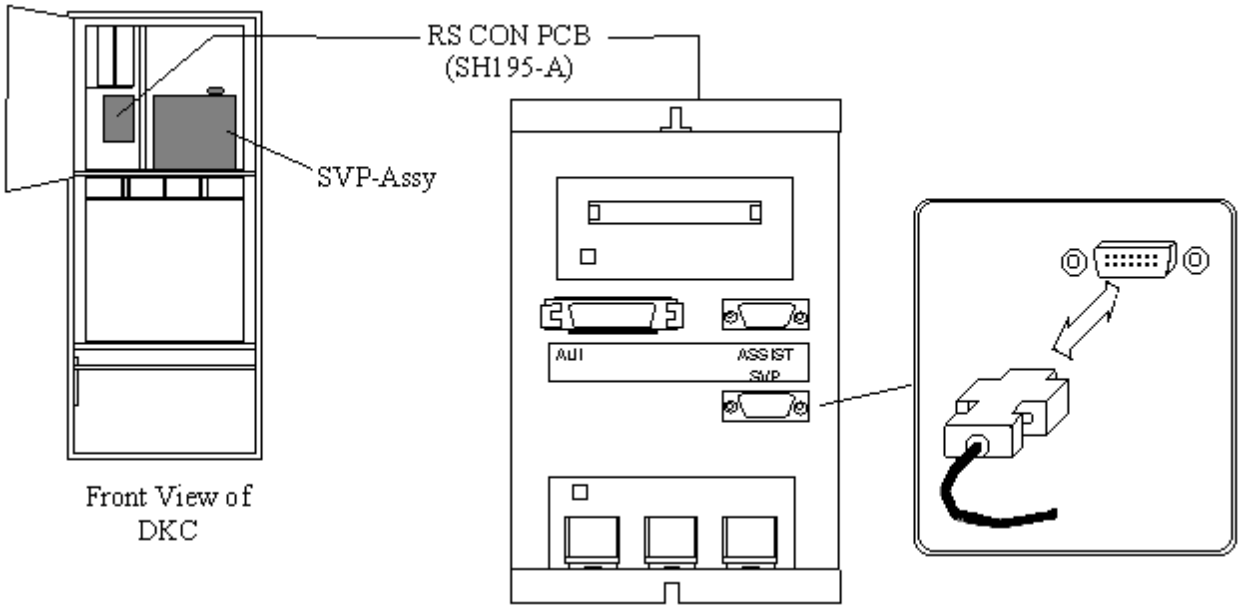
8 Procedure of Removing and Inserting RS232C cable

(1) Please remove the cable from RS CON PCB. (See Fig. 8-1)

(2) Please insert the cable into RS CON PCB. (See Fig. 8-1)

(Separate Model)



(Single Cabinet Model)

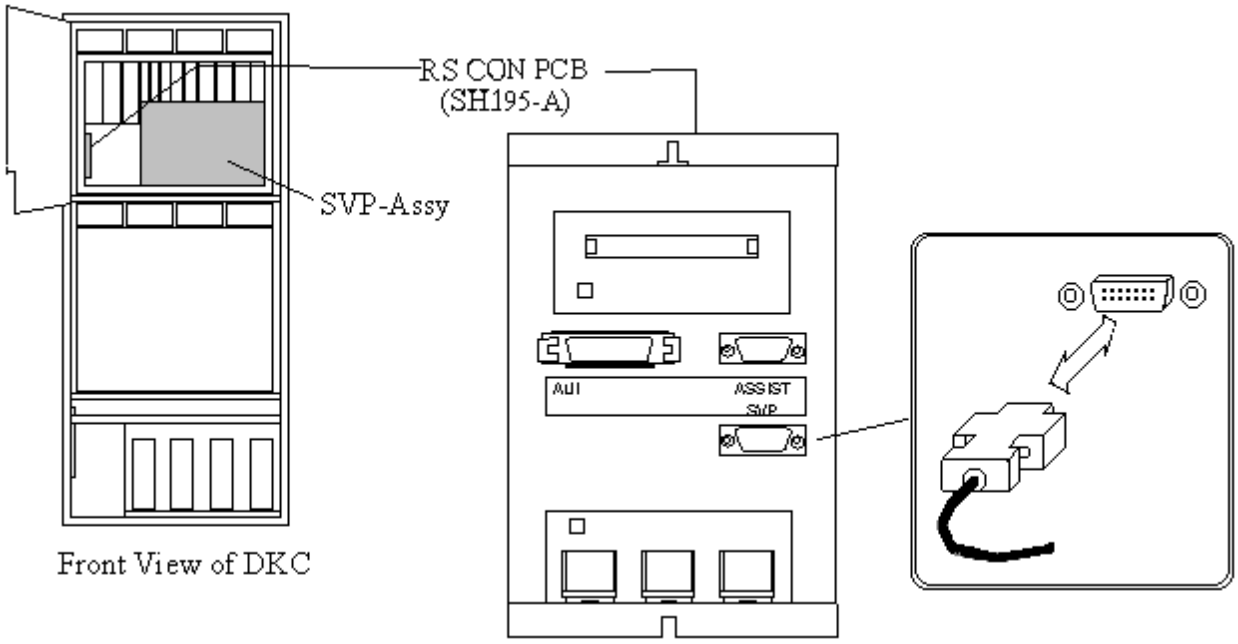


Fig. 8-1

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9 Rip & Ship

9.1 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 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.

9.2 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.

9.3 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.

9.4 The kind of reported SSB and SIM

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

9.5 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.

9.6 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.

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