

REPLACE SECTION



SAFETY SUMMARY

Notes on the operation on the password inputting screen.

The password inputting screen is displayed on the SVP screen to arouse maintenance person's attention when the operation concerned can cause a serious failure such as a system down or a data loss.

- When the password inputting screen is displayed, be sure to observe the cautions given in the procedure concerned in the maintenance manual.
- When a confirmation by the technical support center is required in the maintenance manual, be sure to get it before executing the maintenance procedure concerned.
- Each PCB is operated by the microprogram owned by it individually.

If the PCB is replaced in the procedure that makes the version of the microprogram disagree with that of the PCB, the subsystem cannot operate normally. Be sure to make the revisions consistent each other.

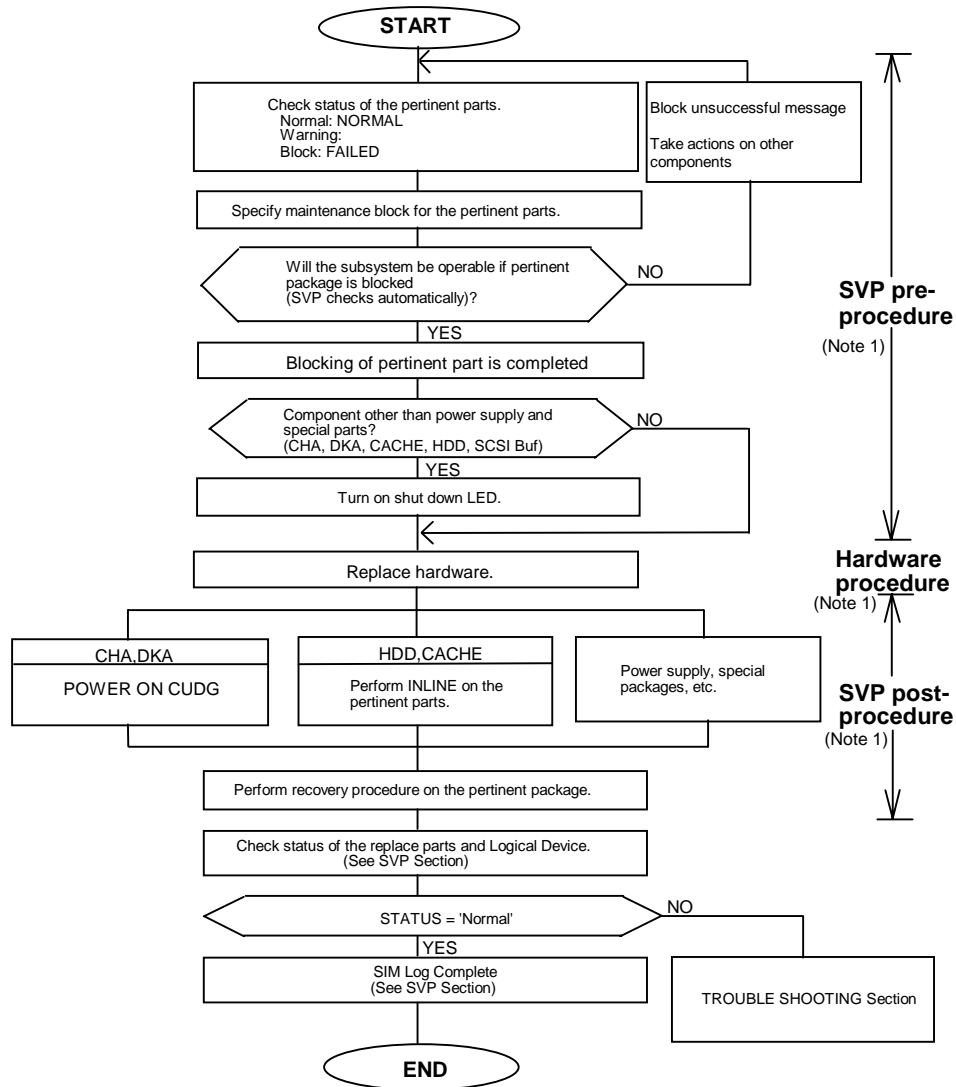
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[Pre T1] -- REP02-390	[Hardware T5] ----- REP03-370	[Post t3] ----- REP04-570
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1 Hot Replace

1.1 Hot Replace Flowchart



Note 1:

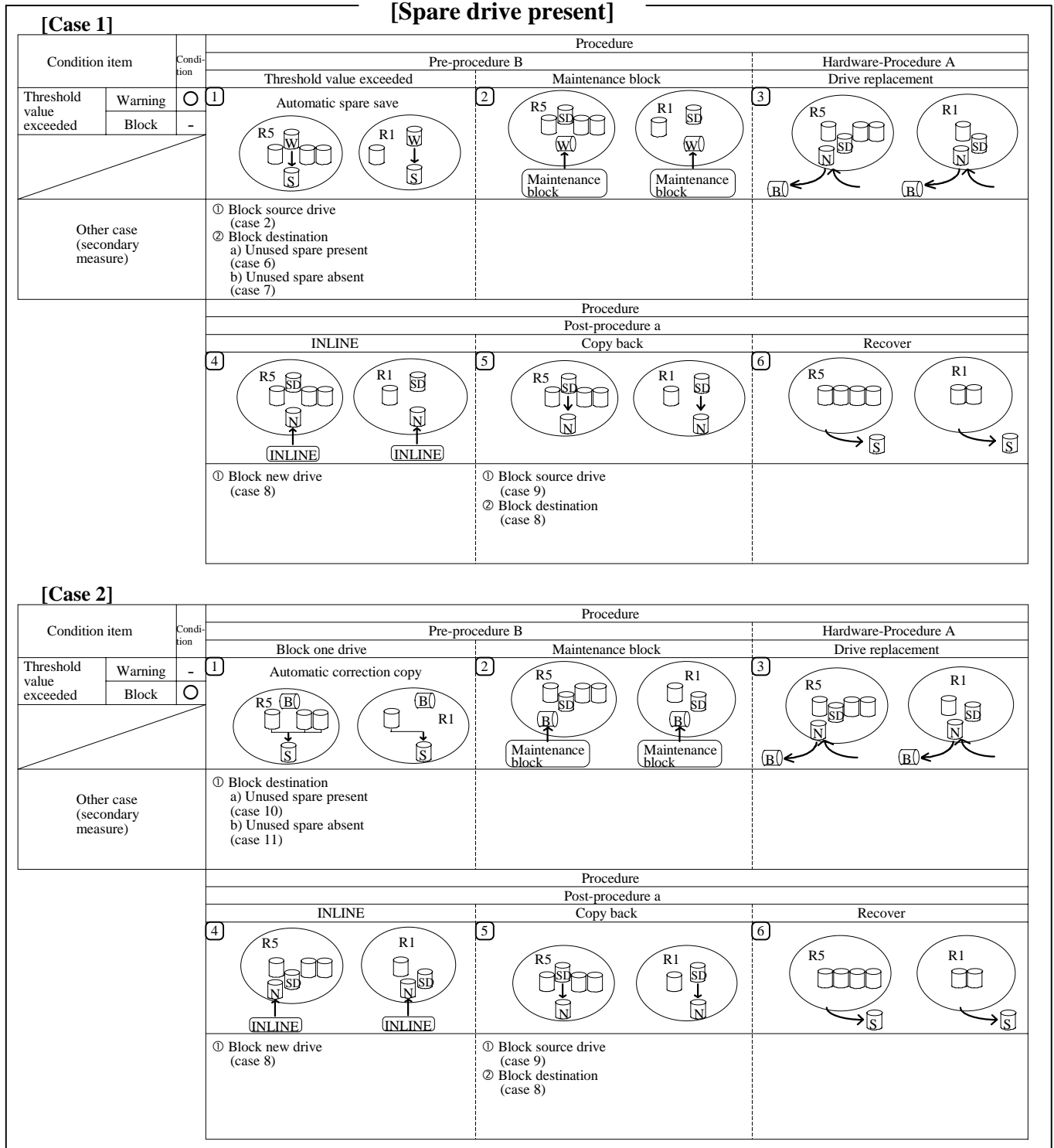
SVP pre-procedure: An SVP (PC) process of issuing a maintenance block instruction after checking the status of the parts to be replaced so that the live parts can be removed and replaced.

Hard ware procedure: A process of removing a parts to be replaced (shut down LED on) and installing a maintenance package.

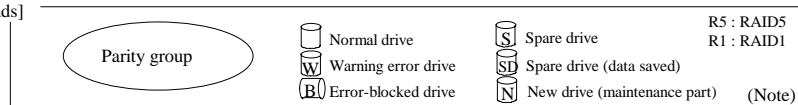
Be sure to wear your wrist strap, and attach to ground, prior to performing the following work.
This will insure that the IC and LSI on the PCB, are protected from static electricity.

SVP post-procedure: An SVP (PC) process of making functional checks (CUDG and INLINE) on the replacement package and building it into the subsystem.

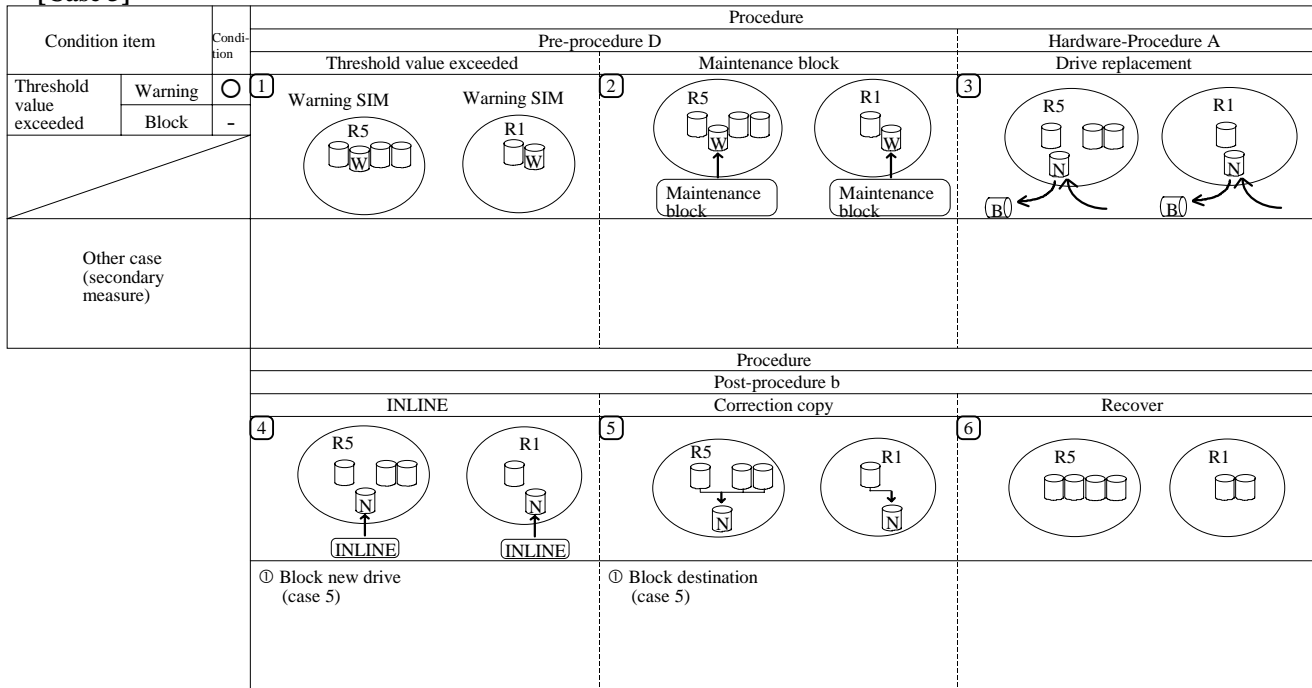
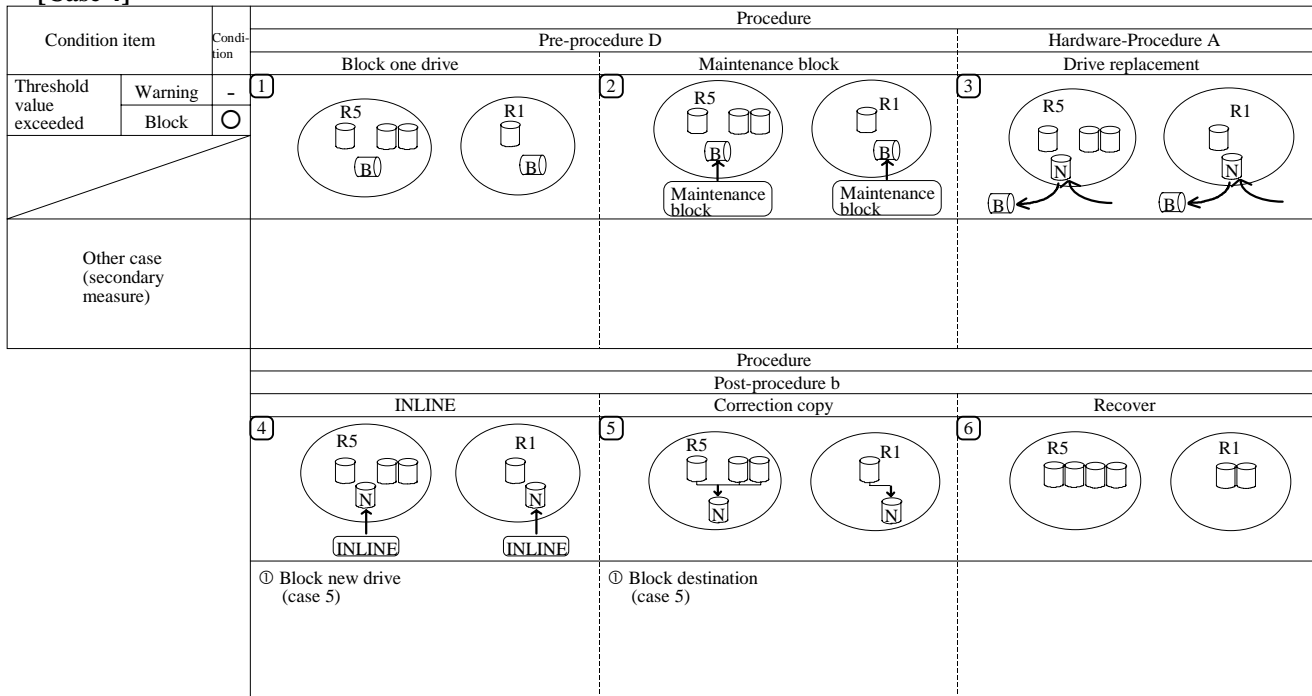
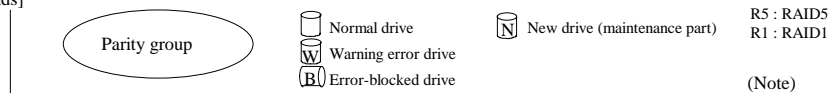
1.2 Concept of Drive Maintenance



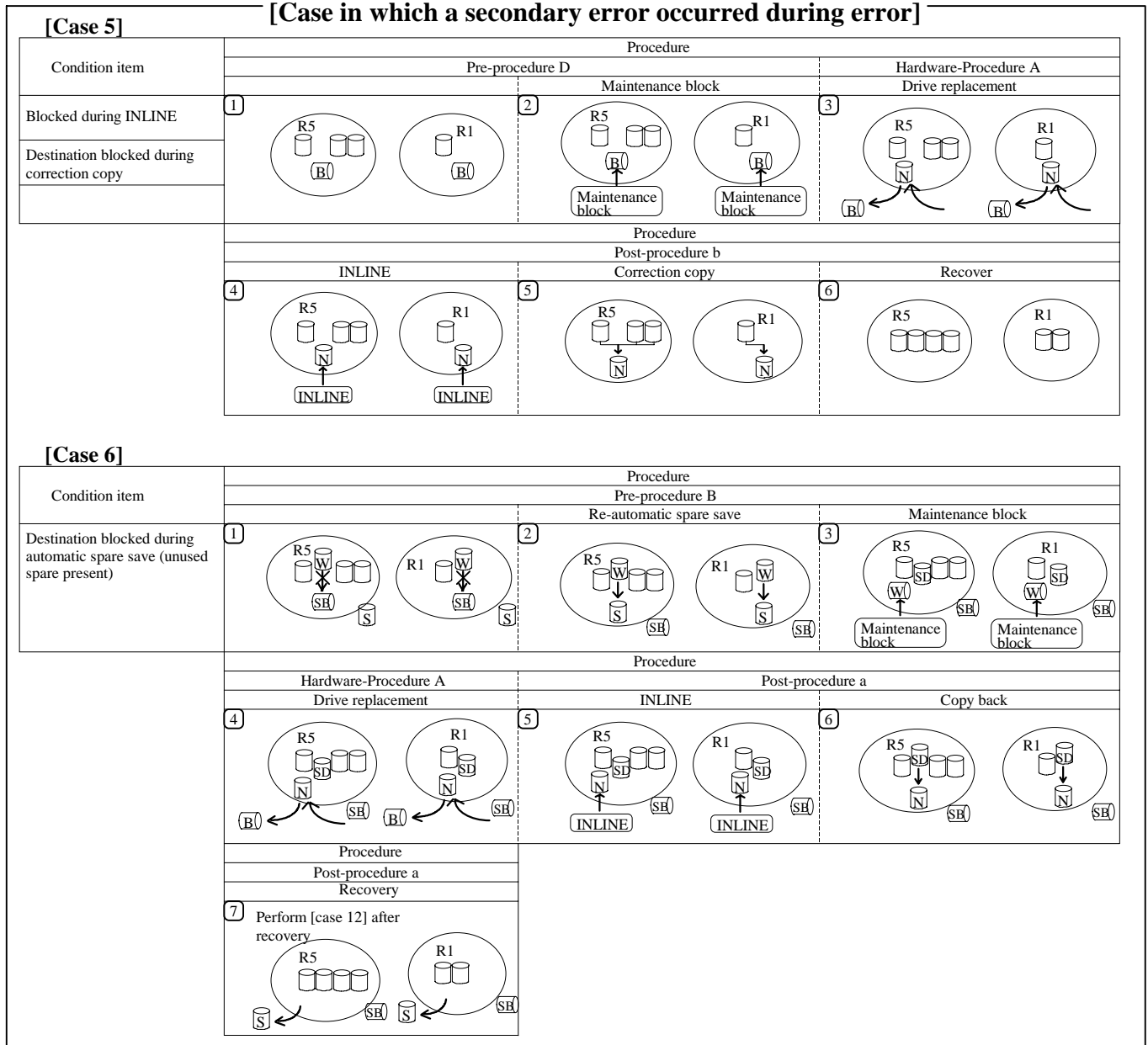
[Legends]



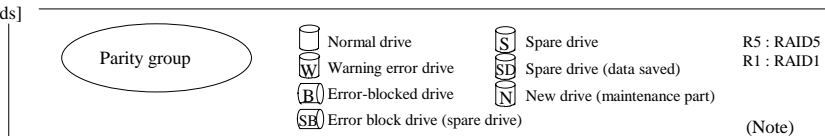
(Note) In RAID 1 method, Parity group consists of four drives.

[Spare drive absent]**[Case 3]****[Case 4]****[Legends]**

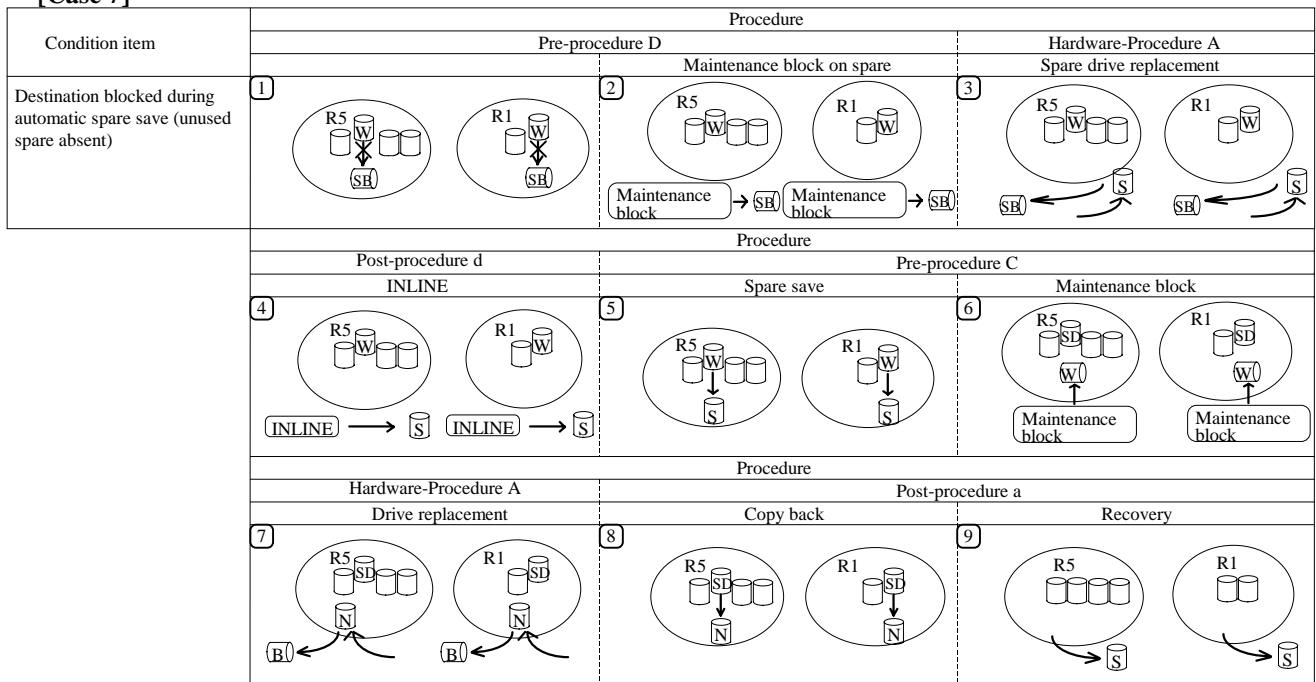
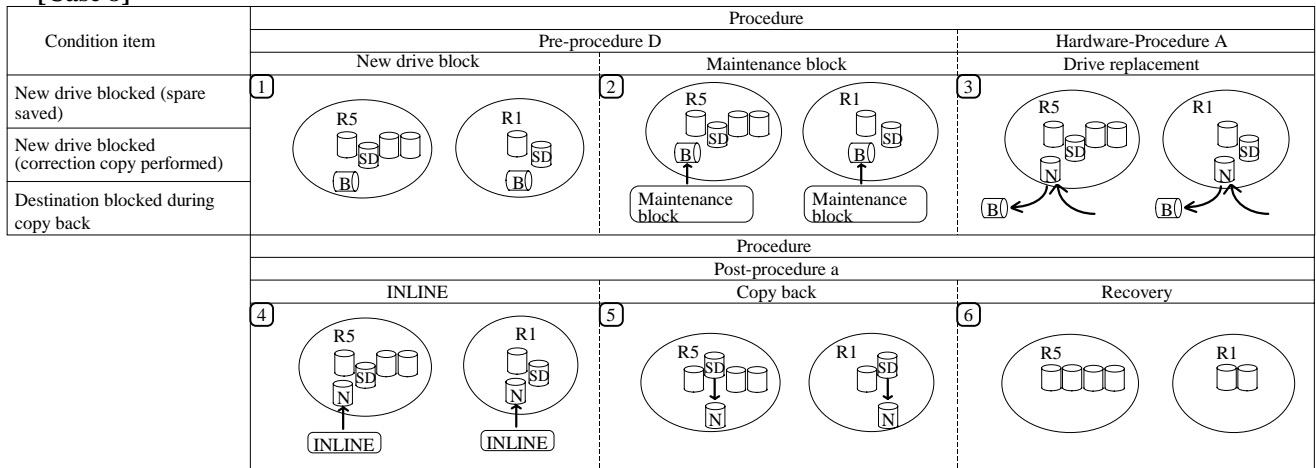
(Note) In RAID 1 method, Parity group consists of two drives.



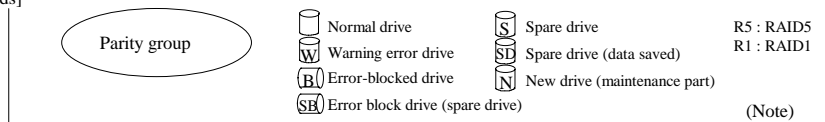
[Legends]



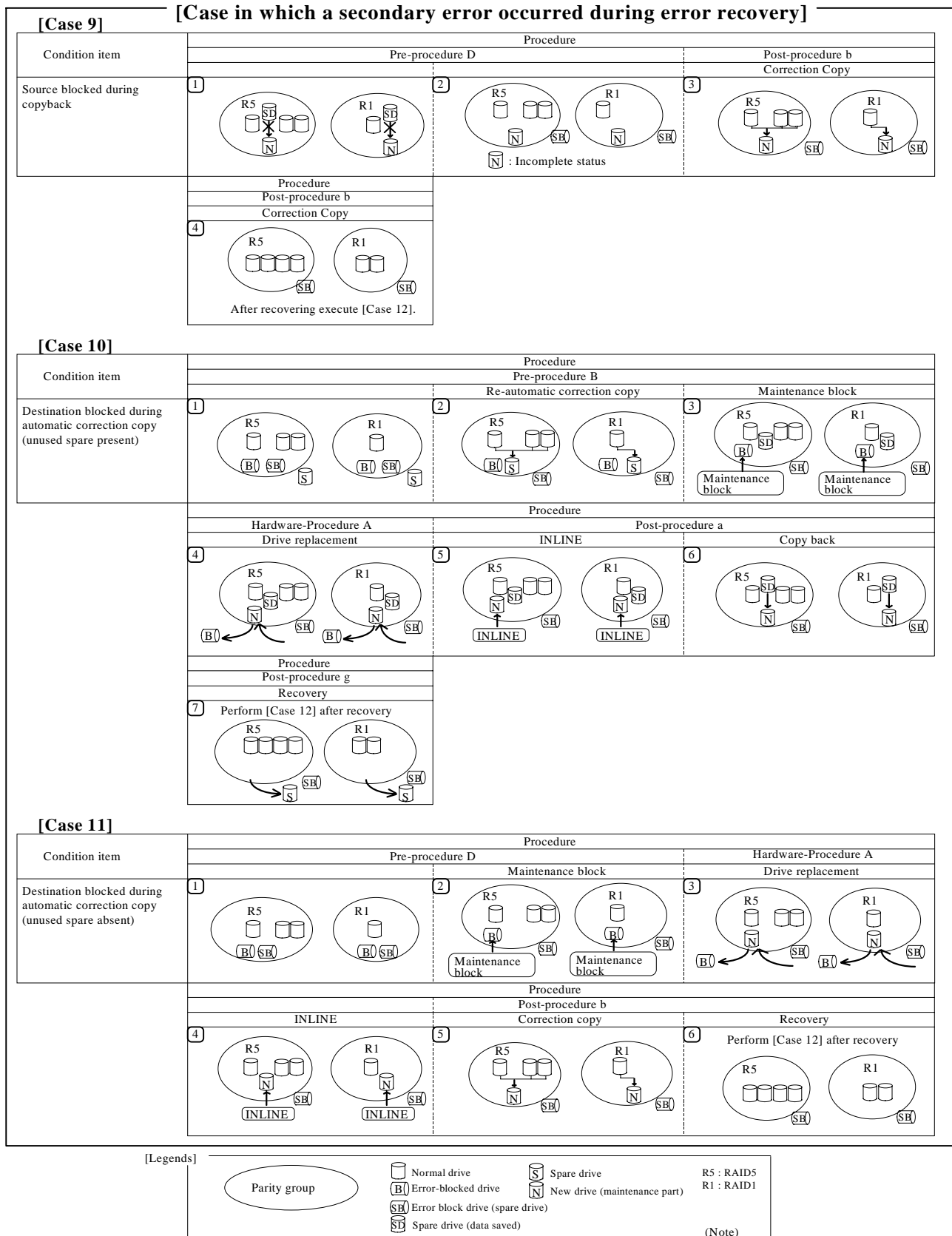
(Note) In RAID 1 method, Parity group consists of two drives.

[Case in which a secondary error occurred during error recovery]**[Case 7]****[Case 8]**

[Legends]



(Note) In RAID 1 method, Parity group consists of two drives.

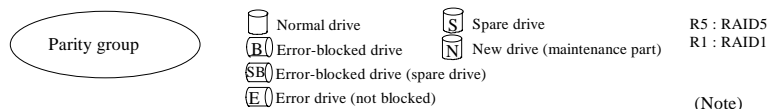


(Note) In RAID 1 method, Parity group consists of two drives.

[Case 12]		(Spare drive blocked)		[Other Cases]		
Condition item		Condition	Procedure			
			Pre-procedure D		Hardware-Procedure A	
Threshold value exceeded	Warning	<div>○</div>	1		3	
	Block		2		4	
Error block SIM						
Other case (secondary measure)						
			Procedure			
			Post-procedure d			
			5			
Other case (secondary measure)			① Block spare drive (case 12)			

[Case 13]			(Case in which a block level error occurred in a normal drive with a redundancy level of 0)		
Condition item		Condition	Procedure		
Threshold value exceeded	Warning	-	Pre-procedure E		
	Block	○	Error at redundancy level of 0 or higher		
Error block SIM		or ○	Maintenance block		
			Procedure		
			Pre-procedure E		
			1 drive replacement		
			Procedure		
			Pre-procedure E		
			1 drive recover		
			Procedure		
			Pre-procedure E		
			All drive recovery		
			L-DEV format		
			Post-procedure c		
			Recovery		

[Legends]



(Note) In RAID 1 method, Parity group consists of two drives.

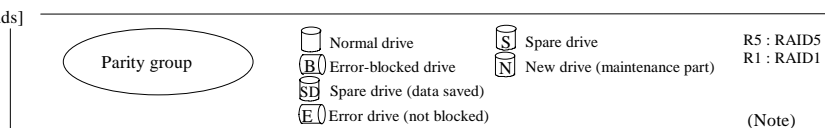
[Case 14] (Preventive drive replacement 1)	[Other cases]
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Condition item		Condition	Procedure		
Threshold value exceeded	Warning	-	Pre-procedure C		
	Block	-	Spare save		
	Others (unusual noise, etc.)	○	Maintenance block		
	Spare drive	○			
Other case (secondary measure)			<div>① Block source drive (case 2)</div> <div>② Block destination drive a) Unused spare present (case 6) b) Unused spare absent (case 7)</div>		
Other case (secondary measure)	Hardware-Procedure A		Procedure		
	Drive replacement		Post-procedure a		
	<div>④</div>		<div>⑤</div>		
	<div>⑥</div>		<div>⑦</div>		
Other case (secondary measure)			<div>① Block new drive (case 8)</div> <div>② Block destination drive (case 9)</div> <div>③ Block source drive (case 10)</div>		
Procedure			Post-procedure a		
Recovery					

[Case 15] (Preventive drive replacement 2)

Condition item		Condition	Procedure		
			Pre-procedure D		Hardware Procedure A
Threshold value exceeded	Warning	-	① Replacement		③ Drive replacement
	Block	-	② Maintenance block		
Others (unusual noise, etc)		○			
Spare drive		-			
Other case (secondary measure)					
			Procedure		
			Post-procedure b		
			Correction copy		Recovery
			④	⑤	⑥
Other case (secondary measure)			① Block new drive (case 5)		① Block destination drive (case 5)

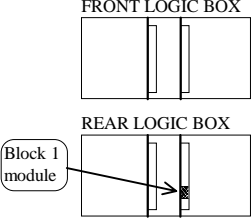
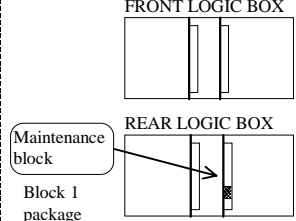
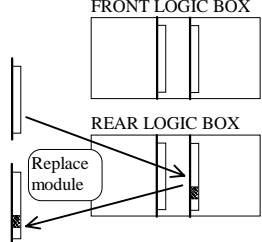
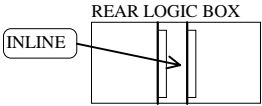
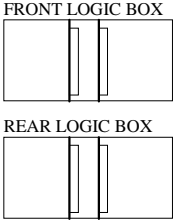
[Legends]



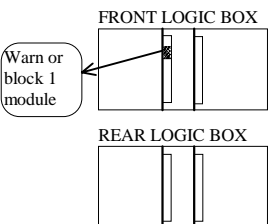
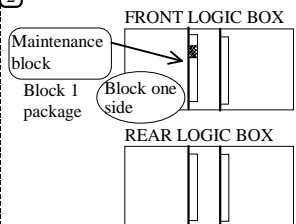
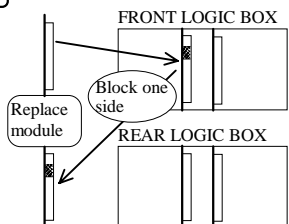
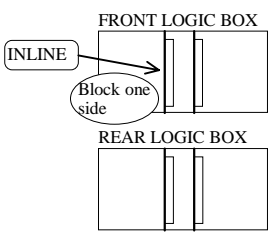
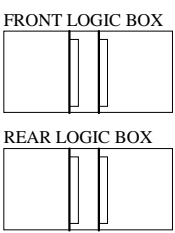
(Note) In RAID 1 method, Parity group consists of two drives.

1.3 Concept of Cache Maintenance

[Case 1]

Condition item		Condition	Procedure		
Threshold value exceeded	Warning	Block	Pre-procedure A, F		Hardware Procedure B
	Block		Block	Maintenance block	PCB replacement
CACHE (WP440-B)		○	1 	2 	3 
CACHE with SM (WP440-A)		-			
CACHE space:512M ~ 32G					
			Procedure		
			Post-procedure e		
			INLINE	Recovery	
			4 	5 	

[Case 2]

Condition item		Condition	Procedure		
Threshold value exceeded	Warning	Block	Pre-procedure A, F		Hardware Procedure B
	Block		Block	Maintenance block	PCB replacement
CACHE (WP440-B)		-	1 	2 	3 
CACHE with SM (WP440-A)		○			
CACHE space:512M ~ 32G					
			Procedure		
			Post-procedure e		
			INLINE	Recovery	
			4 	5 	

① Block one side for SM
 ② For cache, block one side if the size of the rest of cache is a quarter (one side)

1.4 How to Interpret the Hot Replace Procedure

[In case of replacement when SIM was reported]

- ① Search a work ID which coincides with the work ID corresponding to SIM ACC(FPC) (refer to FPC list on page [ACC04-10](#)) from Parts Replacement Process Table on page [REP01-150](#).
Search a work ID corresponding to the pertinent condition if "Condition Item" is described in Parts Replacement Process Table.
- ② If the work ID is found,
 - Take actions according to the SVP pre-procedure, hardware procedure, SVP post-procedure number that match the work ID.
 If no work ID is found,
 - Search a work ID corresponding to SIM ACC(FPC, and error details) from Parts Replacement Process Table on page [REP01-150](#).
 - Take actions according to the SVP pre-procedure, hardware procedure, SVP post-procedure number that match the work ID.

Note : See page [REP01-130](#) for the procedure for searching a work ID to replace a drive.
When replacing a drive, be sure to see page [REP01-110](#) and [REP01-120](#).

[In case of replacement when SIM was not reported]

- ① Search a work ID corresponding to the part to be replaced from Parts Replacement Process Table on page [REP01-150](#).
- ② Take actions according to the SVP pre-procedure, hardware procedure, SVP post-procedure number that match the work ID.

Note : See page [REP01-130](#) for the procedure for searching the work ID to replace a drive.
When replacing a drive, be sure to see page [REP01-110](#) and [REP01-120](#).

-----<Example>-----

Condition to replace

SIM was reported

Work ID corresponding to SIM ACC FPC is RCA1

* Search an applicable Work ID identified by shaded area in the following sample of Parts Replacement Process Table under the above conditions.

<CACHE>

Work ID	Part name	Procedure			Replacing time
		SVP re-procedure	Hardware procedure	SVP post-procedure	
RCA1	CACHE with SM (WP440-A)	Pre A, pre F	Hardware B	Post e	15 minutes
RCA2					

PROCEDURE BEFORE PDEV EXCHANGE AND CORRECTION COPY

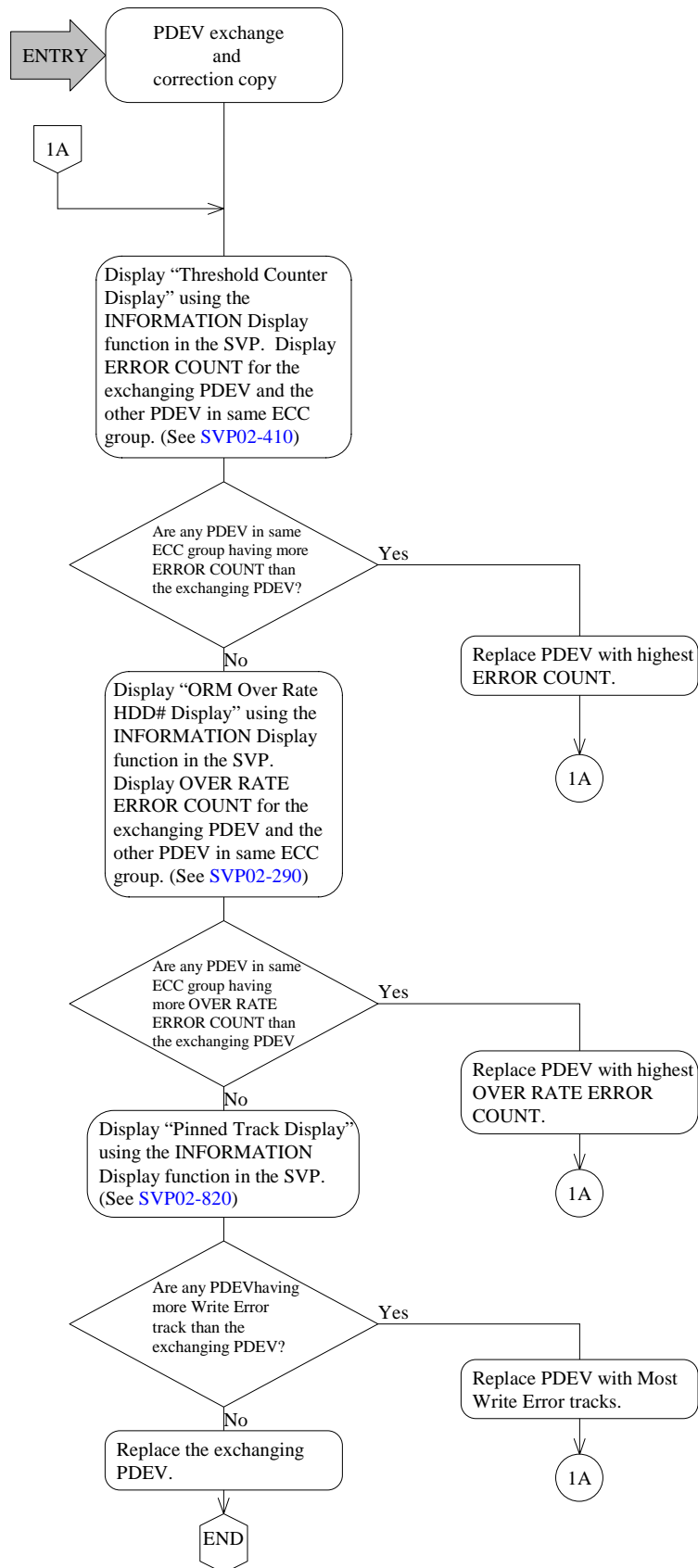
Instructions before blocking and exchanging PDEV with a drive failure error is listed below.

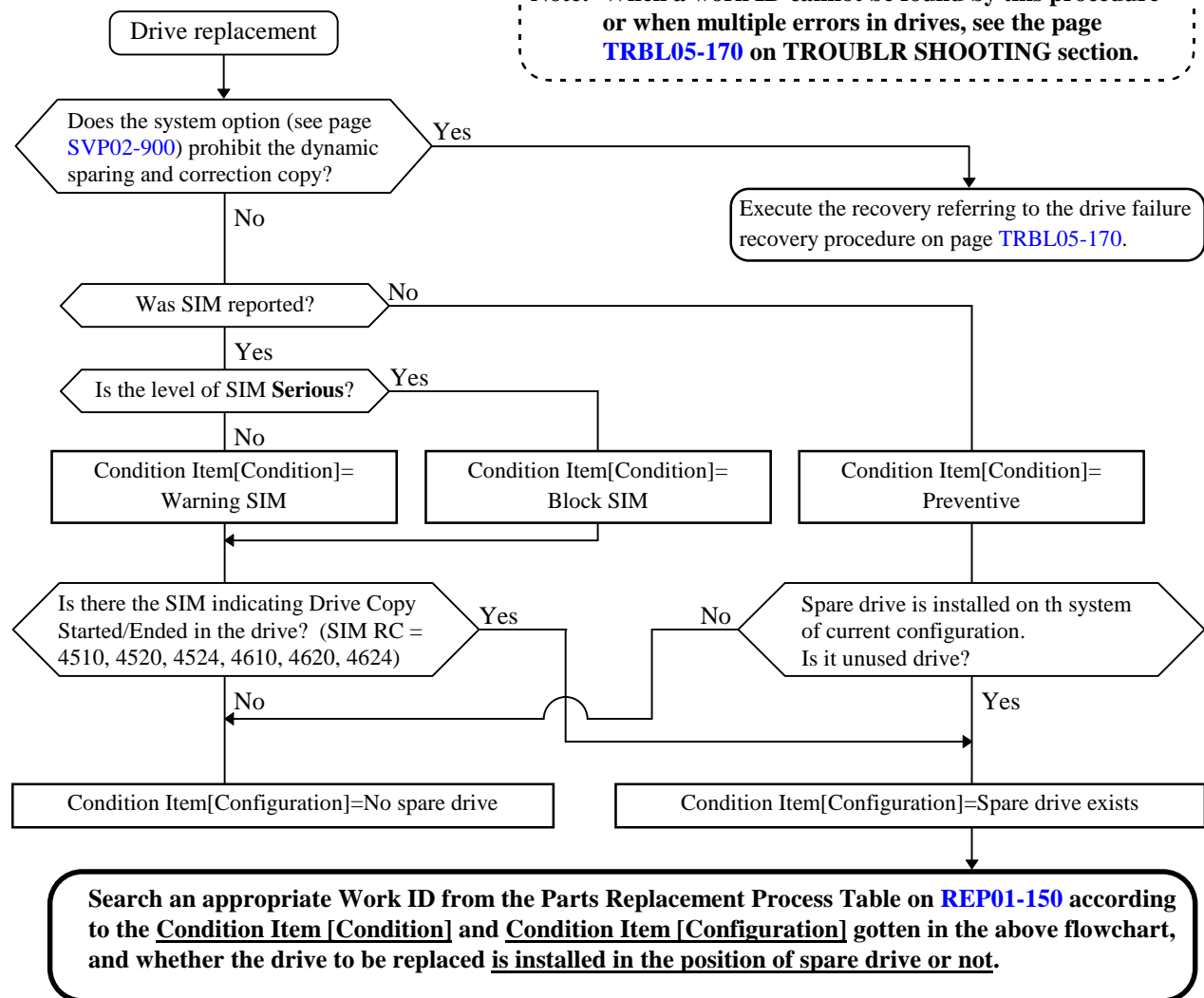
When exchanging unblocked PDEV, redundancy in the ECC group is lost. Therefore, during PDEV exchange, the other PDEV in the same ECC group is fenced by a drive failure error, all the LDEV in the ECC group is fenced. Accordingly, to prevent the above problem from occurring, the status of PDEV. When there is a PDEV in the same ECC group having more drive failure errors than the exchanging PDEV exists, replace the PDEV with highest drive failure errors.

Before PDEV exchange, following items are checked.

#	Items checked	Procedure
1	Error Count	“Threshold Counter Display” (See SVP02-410)
2	ORM Over Rate	“ORM Over Rate HDD# Display” (See SVP02-290)
3	Write Error	“Pinned Track Display” (See SVP02-820)

PROCEDURE BEFORE PDEV EXCHANGE and CORRECTION COPY.



How to search a work ID to replace a drive

<<Example>>

- SIM was reported.
 - Level of the SIM is not "Serious". = Condition Item[Condition] is "Warning SIM".
 - There is the SIM that RC is 4510 in the drive. = Condition Item[Configuration] is "Unused spare drive exists".
 - The drive to be replaced is not a spare drive. = "Data Drive"
- * Under the above conditions, the shaded area is searched from Parts Replacement Process Table.
Therefore, in this example Work ID should be RDK1.

<Data Drive, Spare Drive>

Work ID	Parts Name	Condition Item				Procedure			Reference information Image of replacement	
		Condition			Configuration Unused spare drive	SVP pre-procedure	Hardware procedure	SVP post-procedure	Outline	Case Refer to "1.2 Concept of Drive Maintenance" on REP01-20.
		Failure		Preventive						
		Warning SIM	Block SIM							
RDK1	Data Drive	×	-	-	Yes	Pre A, Pre B *1	Hard A *1	Post a *1	Drive replacement ~ Copy back	Case 1
RDK2	Data Drive	-	×	-	Yes					

1.5 Parts Replacement Process Table

<Data Drive, Spare Drive>

Work ID	Parts Name	Condition Item				Procedure *1			Reference information		
		Condition		Configu-ration	SVP pre-procedure	Hardware procedure	SVP post-procedure	Replacing time *3	Outline	Case *2	
											Failure
		Warning SIM	Block SIM	Preven-tive							Unused Spare drive
RDK1	Data Drive Note 1	×	-	-							Yes
RDK2	Data Drive Note 1	-	×	-	Yes	Pre A, Pre B *1	Hardware A *1	Post a *1	20 min	Drive replace ~ Copy back	Case 2
RDK3	Data Drive Note 1	-	-	×	Yes	Pre A, Pre C, Pre B *1	Hardware A *1	Post a *1	—	Copy to Spare drive ~ Drive replace ~ Copy back	Case 14
RDK4	Data Drive Note 1,4	×	-	-	No	Pre A, Pre D *1	Hardware A *1	Post b *1	20 min	Drive replace ~ Correction copy	Case 3
RDK5	Data Drive Note 1,4	-	×	-	No	Pre A, Pre D *1	Hardware A *1	Post b *1	20 min	Drive replace ~ Correction copy	Case 4
RDK6	Data Drive Note 1,4	-	-	×	No	Pre A, Pre D *1	Hardware A *1	Post b *1	20 min	Drive replace ~ Correction copy	Case 15
RDK7 Note 2 Note 3	Data Drive Note 1	Note 2				Pre A, Pre E *1	Hardware A *1	Post c *1	—	LDEV formrtting after replacing all the HDDs blocked in a parity group Note 3	Case 13
RDK8	Spare Drive Note 1	-				Pre A, Pre D *1	Hardware A *1	Post d *1	20 min	Spare drive replace	Case 12

*1: Refer to [REP01-190](#)

*2: Refer to [REP01-20](#)

*3: This time does not include copy back time of data in HDD.

Note 1) Parts Name is indicates attribute of a drive.

Data Drive : The drive is installed in the position for a drive except spare drive (Data Drive).

Spare Drive : The drive is installed in the position for a spare drive.

Note 2) RDK7 is a Work ID for a work which is applicable to a case that two or more drives in a same parity group are blocked.

When the procedures instructed by RDK7 are executed, data will be lost. Ask the technical support center about the appropriateness of the operation.

Note 3) Confirm the parity group and the LDEV No. corresponding to the HDD through the SVP STATUS. See page [SVP03-100](#) for the procedure for referring to SVP STATUS

Note 4) See “PROCEDURE BEFORE PDEV EXCHANGE AND CORRECTION COPY” ([REP01-110](#)).

Note : If a Work ID cannot be found or if multiple drive error is occurring, see page [TRBL05-170](#) on TROUBLE SHOOTING section.

<Cache>

Work ID	Part Name	Procedure *1			*2 Replacing Time
		SVP Pre-procedure	Hardware procedure	SVP post-procedure	
RCA1	CACHE (with SM) (WP440-A)	Pre A, Pre F	Hardware B	Post e	15 min
RCA2	CACHE (WP440-B)	Pre A, Pre F	Hardware B	Post e	15 min

*1 Refer to [REP01-190](#)

*2 This time does not include destaging time

Note : Cache PCB Exchange for preventive cause cache close.
Therefore subsystem ability may fall.

<Channel Adapter, Disk Adapter, FSW, and CARB Switch>

Work ID	Parts Name	Procedure *1			Replacing Time
		SVP Pre-procedure	Hardware procedure	SVP Post-procedure	
RCH1	Serial CHA	Pre A, Pre H	Hardware C	Post f	20 min
RCH5	Fibre-T CHA MF Fibre CHA	Pre A, Pre H	Hardware D	Post f	20 min
RDA1	DKA	Pre A, Pre H	Hardware E	Post f	20 min
RFS1	FSW	Pre A, Pre L	Hardware T20	Post j	13 min
RCS1	CSW	Pre A, Pre M	Hardware F	Post k	13 min

*1 Refer to [REP01-190](#)

If a failure occurs in replacing a channel adaptor or a disk adaptor, see “Error Recovery Procedure during CHA/DKA replacement” ([TRBL05-100](#)).

If a failure occurs in replacing a CARB Switch, see “Recovery procedure when CSW PCB replacement failed” ([TRBL05-560](#)).

<DKC, special P/K, Fan, Others>

Work ID	Parts Name	Procedure Note 1)			Replacing Time
		SVP pre-procedure	Hardware procedure	SVP post-procedure	
RT1	DKC Panel	Pre A, Pre T1	Hardware T1	Post t1	16 min
RT4	EPO SW	Pre A, Pre T1	Hardware T2	Post t1	12 min
RT5	DKCMN	Pre A, Pre T1	Hardware T3	Post t1	22 min
RT6	PCI CON Note 2)	Pre A, Pre T1	Hardware T4	Post t1	16 min
RT8	Fan assembly(DKC)	Pre A, Pre T3	Hardware T5	Post t3	8 min
RT9	Thermostat assembly	Pre A, Pre T3	Hardware T6	Post t3	8 min
RT10	SVP/Flash Memory Card	Pre A, Pre T1 Note 3)	Hardware T7	Post t1	40 min
RT11	SSVP/HUB	Pre A, Pre T1	Hardware T8	Post t1	29 min
RT12	Breaker box 1	Pre A, Pre T3	Hardware T9	Post t3	28 min
RT13	Breaker box 2	Pre A, Pre T3	Hardware T10	Post t3	28 min
RT14	Battery Box	Pre A, Pre T3	Hardware T11	Post t3	11 min
RT15	Battery Controller PCB	Pre A, Pre T3	Hardware T12	Post t3	8 min
RT17	RS CON	Pre A, Pre T1	Hardware T19	Post t1	8 min
RT18	Flash Memory Card	Pre A, Pre T1	Hardware T7	Post t1	15 min
RT19	AC BOX-C1(DKC) AC BOX-C2(DKC)	Pre A, Pre T3	Hardware T21	Post t3	28 min

Note 1) Refer to [REP01-190](#)

Note 2) All connected devices to DKC410I are powered off by EPO signal of PCI when the PCI CON PCB is removed.

Prevent the trouble for connected devices from EPO signal.

Note 3) When SVP is not able to operate, start from Hardware procedure.

<DKC Power Supply>

Work ID	Parts Name	Procedure Note 1)			Replacing Time
		SVP pre-procedure	Hardware procedure	SVP post-procedure	
RT20	SW PS(LOGIC,5/3V)	Pre A, Pre T3	Hardware T13	Post t3	
RT23	SW PS(LOGIC,Sub PS)	Pre A, Pre T3	Hardware T13	Post t3	
RT26	SW PS(LOGIC,3.3V)	Pre A, Pre T3	Hardware T13	Post t3	

Note 1) Refer to [REP01-190](#).

<DKU, Special P/K, Power Supply, Fan>

Work ID	Parts Name	Procedure Note 1)			Replacing Time
		SVP pre-procedure	Hardware procedure	SVP post-procedure	
RT29	DKUMN	Pre A, Pre T4 Note 2)	Hardware T14	Post t4	12 min
RT30	SW PS(DKU Multi)	Pre A, Pre T4 Note 2)	Hardware T15	Post t4	10 min
RT31	Fan assembly(DKU)	Pre A, Pre T4 Note 2)	Hardware T16	Post t4	5 min
RT32	AC Box-R10 (3 Phase Type for Separate Model)	Pre A, Pre T4 Note 2)	Hardware T17	Post t4	30 min
RT33	AC Box (except R10) (3 Phase Type for Separate Model)	Pre A, Pre T4 Note 2)	Hardware T18	Post t4	30 min
RT34	AC Box (1 Phase Type for Separate Model)	Pre A, Pre T4	Hardware T22	Post t4	30 min
RT35	AC Box (Single Cabinet Model)	Pre A, Pre T4	Hardware Tx	Post t4	30 min

Note 1) Refer to [REP01-190](#).

Note 2) When SVP is not able to operate, start from Hardware procedure.

1.6 Procedure contents table

SVP Pre	GO TO	Hardware		GO TO
		Procedure	Parts Name	
Pre A	REP02-10	Hardware A	HDD Canister	REP03-10
Pre B	REP02-30	Hardware B	Cache Memory PCB	REP03-40
Pre C	REP02-80	Hardware C	Serial CHA	REP03-70
Pre D	REP02-120	Hardware D	Fibre CHA	REP03-100
Pre E	REP02-160		MF Fibre CHA	
Pre F	REP02-200	Hardware E	DKA	REP03-130
Pre H	REP02-250	Hardware F	CSW	REP03-160
Pre K	REP02-300	Hardware T1	DKC Panel	REP03-190
Pre L	REP02-330	Hardware T2	EPO Switch	REP03-240
Pre M	REP02-360	Hardware T3	DKCMN	REP03-290
Pre T1	REP02-390	Hardware T4	PCI CON	REP03-320
Pre T3	REP02-510	Hardware T5	Fan Assembly(DKC)	REP03-370
Pre T4	REP02-600	Hardware T6	Thermostat Assembly	REP03-390
Pre V	REP02-680	Hardware T7	<ul style="list-style-type: none"> • SVP • Flash Memory Card • LAN Port 	REP03-410
		Hardware T8	SSVP/HUB	REP03-490
		Hardware T9	Breaker Box-1	REP03-510
		Hardware T10	Breaker Box-2	REP03-560
		Hardware T11	Battery Box	REP03-610
		Hardware T12	BAT CTR PCB	REP03-640
		Hardware T13	Power Supply(DKC)	REP03-670
		Hardware T14	DKUMN	REP03-700
		Hardware T15	Power Supply(DKU)	REP03-730
		Hardware T16	HDD Fan Assembly (DKU)	REP03-760
		Hardware T17	AC BOX-R10(3 Phase Type for Separate Model)	REP03-790
		Hardware T18	AC BOX(except R10) (3 Phase Type for Separate Model)	REP03-890
		Hardware T19	RS CON	REP03-1050
		Hardware T20	FSW	REP03-1070
		Hardware T21	AC BOX-C1(DKC) AC BOX-C2(DKC)	REP03-1100
		Hardware T22	AC BOX(1Phase Type for Separate Model)	REP03-1250

SVP Post	GO TO
Post a	REP04-10
Post b	REP04-50
Post c	REP04-90
Post d	REP04-150
Post e	REP04-180
Post f	REP04-210
Post i	REP04-240
Post j	REP04-270
Post k	REP04-300
Post t1	REP04-320
Post t3	REP04-570
Post t4	REP04-610
Post u	REP04-660

1.7 MAINTENANCE outline

(1) How to interpret the status display

- ① The status information is displayed on the SVP screen is not on a realtime basis. It reflects the state that was established.

1.8 Availability of the online maintenance when HRC/HORC is used

Component	Maintenance Type	Condition	HRC path established		During initial copy		After finished copy		Suspend	
			MCU	RCU	MCU	RCU	MCU	RCU	MCU	RCU
Logical Device	Blockade	—	×	×	SVP2031W	SVP2034W	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Recovery	—	×	×	SVP2031W	SVP2034W	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Format	—	×	×	SVP2031W	SVP2034W	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Verify	—	×	×	×	×	×	×	×	×
HDD canister	Replace	—	×	×	×	×	×	×	×	×
Cache PCB	Replace	—	×	×	SVP2059W	SVP2079W	×	×	×	×
CHE or CHF	Replace	Alternate path exist.	×	×	×	SVP2038W	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	×	×	SVP2073W	SVP2038W	SVP2074W	SVP2038W	×	SVP2038W
DKA	Replace	—	×	×	×	×	×	×	×	×
CSW PCB	Replace	—	×	×	×	×	×	×	×	×
DKC	Replace	Alternate path exist.	×	×	SVP2059W	SVP2079W	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	×	×	SVP2059W	SVP2079W	SVP2074W	SVP2038W	×	SVP2038W

Component	Maintenance Type	Condition	Suspending		Deleting	
			MCU	RCU	MCU	RCU
Logical Device	Blockade	—	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Recovery	—	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Format	—	SVP2031W	SVP2034W	SVP2031W	SVP2034W
	Verify	—	×	×	×	×
HDD canister	Replace	—	×	×	×	×
CACHE	Replace	—	×	×	×	×
CHE or CHF	Replace	Alternate path exist.	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	SVP2075W	SVP2038W	SVP2075W	SVP2038W
DKA	Replace	—	×	×	×	×
CSW PCB	Replace	—	×	×	×	×
DKC	Replace	Alternate path exist.	×	SVP2038W	×	SVP2038W
		Alternate path not exist.	SVP2075W	SVP2038W	SVP2075W	SVP2038W

× : Maintenance is available

SVPXXXXW : Maintenance is not available based on the specification. Refer to SVP-MSG SECTION.

Note.1 About replacement of CHE in the RCU side

If the CHE that will be replaced is connected to a path, from MCU please confirm that the Path is deleted from MCU.

After replacement, please add the Path.

The pair will be suspended if the ESTPAIR or paircreate(pairresync) command issues during the HDD Canister or the Cache PCB replacement. Please ask for the consent of a customer before the online maintenance operation.

Refer to “8.4 Procedures for online microprogram exchange and CHS/CHF replacement using alternate path” ([MULTI08-60](#)).

* : If the maintenance operation must be done while HRC asynchronous is using, you must confirm that the usage of Sidefile and Write Pending Data monitor less than 20% of total Cache capacity before you start the maintenance operation. Only when the usage of Sidefile and Write Pending Data monitor is less than 20% of total Cache capacity, you can proceed the maintenance operation.

Besides, in the case of cache de-install operation, you must suspend ASYNC HRC pairs before operation by RMC (SVP) regardless of the amount of Sidefile and Write Pending Data. If you don't take this recommendation, it may cause suspension for the decrease of cache amount.

Refer to “Monitoring” in the SVP SECTION about sidefile monitor.

When you use Fibre Remote Copy function, it is necessary for you to use new CHT P/K series (WP411-B or WP411-C) which are different from old CHT P/K series (WP411-A).

The new CHT P/K series and the old CHT P/K series are not compatible each other, so the new CHT P/K series are not available for the maintenance parts of the old CHT P/K series.

1.9 Availability of the online maintenance when HODM is used

Component	Maintenance Type	Condition	HODM path established		During initial copy		Waiting for erase		Suspend	
			MCU	RCU	MCU	RCU	MCU	RCU	MCU	RCU
Logical Device	Blocade	—	×		SVP2031W		SVP2031W		SVP2031W	
	Recovery	—	×		SVP2031W		SVP2031W		SVP2031W	
	Format	—	×		SVP2031W		SVP2031W		SVP2031W	
	Verify	—	×		×		×		×	
HDD canister	Replace	—	×		SVP2059W		×		×	
Cache PCB	Replace	—	×		SVP0259W		×		×	
CHE	Replace	Alternate path exist.	×		×		×		×	
		Alternate path not exist.	×		SVP2076W		SVP2078W		SVP2077W	
CHT	Replace	—	×		×		×		×	
DKA	Replace	—	×		×		×		×	
CSW PCB	Replace	—	×		×		×		×	

Component	Maintenance Type	Condition	During for R-Vol Erasing		Erasing Error	
			MCU	RCU	MCU	RCU
Logical Device	Blocade	—	SVP2031W		SVP2031W	
	Recovery	—	SVP2031W		SVP2031W	
	Format	—	SVP2031W		SVP2031W	
	Verify	—	×		×	
HDD canister	Replace	—	×		×	
Cache PCB	Replace	—	×		×	
CHE	Replace	Alternate path exist.	×		×	
		Alternate path not exist.	SVP2078W		SVP2078W	
CHT	Replace	—	×		×	
DKA	Replace	—	×		×	
CSW PCB	Replace	—	×		×	

× : Maintenance is available

SVPXXXXW : Maintenance is not available based on the specification. Refer to SVP-MSG SECTION.

Note.1 About replacement of CHE in the RCU side

If the CHE that will be replaced is connected to a path, from MCU please confirm that the Path is deleted from MCU.

After replacement, please add the Path.

Refer to “8.4 Procedures for online microprogram exchange and CHS/CHF replacement using alternate path” ([MULTI08-60](#)).

1.10 Availability of the online maintenance when HMRCF/HOMRCF is used

Component	Maintenance Type	Condition	Reserve-Volume	Pending/Resync/SP-PEND		Duplex		Split		Suspend	
				S-VOL/ P-VOL	T-VOL/ S-VOL	S-VOL/ P-VOL	T-VOL/ S-VOL	S-VOL/ P-VOL	T-VOL/ S-VOL	S-VOL/ P-VOL	T-VOL/ S-VOL
Logical Device	Blocade	—	SVP2484W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	×	
	Restore	—	SVP2484W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	×	
	Format	—	SVP2484W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	SVP2483W	SVP2485W	×	
	Verify	—	×	×		×		×		×	
HDD canister	Replace	—	×	×		×		×		×	
	Dynamic Sparing	—	×	SVP2486W		×		×		×	
	Correction Copy	—	×	SVP2486W		×		×		×	
Cache PCB	Replace	—	×	×		×		×		×	
CHA	Replace	—	×	×		×		×		×	
DKA	Replace	—	×	×		×		×		×	
LTM PCB	Replace	—	×	×		×		×		×	

1.11 Availability of the online maintenance when HXRC is used

Component	Maintenance Type	During initial copy		Established		Suspend	
		Primary	Secondary	Primary	Secondary	Primary	Secondary
Logical Device	Blockade	**	**	**	**	**	**
	Recovery	**	**	**	**	**	**
	Format	**	**	**	**	**	**
	Verify	x	x	x	x	x	x
HDD canister	Replace	x	x	x	x	x	x
Cache PCB	Replace	*	x	*	x	*	x
CHA	Replace	x	x	x	x	x	x
DKA	Replace	x	x	x	x	x	x
LTM PCB	Replace	x	x	x	x	x	x

x: Maintenance is available

*: When a maintenance operation is needed while HXRC is using, I/O's for HXRC pair volumes or HXRC itself should be stopped before the maintenance operation.

If the maintenance operation must be done while HXRC is using, you must confirm that the usage of Sidefile monitor less than 20% of total Cache capacity before you start the maintenance operation. Only when the usage of Sidefile monitor is less than 20% of total Cache capacity, you can proceed the maintenance operation.

Refer to "Monitoring" in the SVP SECTION about Sidefile monitor.

Select the [Information] icon in the 'SVP' window.

Next select the [Monitor] menu in the 'Information' window and select [start....].

Next select the 'Sidefile' box in the 'Item' menu in the 'Monitoring' window and select [OK].

**: When a maintenance operation is needed while HXRC is using, HXRC should be stopped before the maintenance operation.

[PRE-PROCEDURE A]

— OUTLINE —

- ① Initial Screen.
- ② Change SVP operation mode.
- ③ Open Maintenance window.

1. <Initial screen>

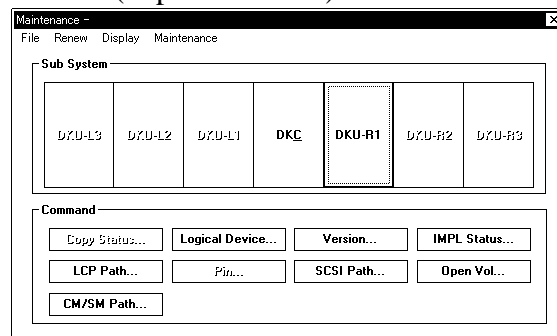
2. <Operation mode change>

Change the mode to [Modify Mode].
Select (CL) [Maintenance].

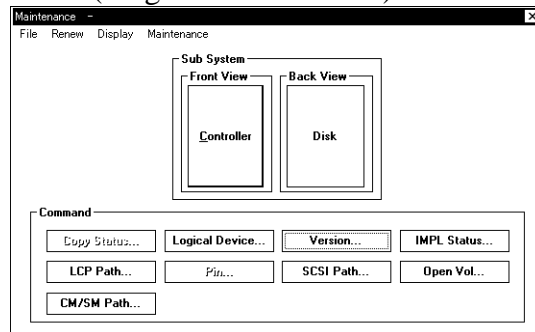
3. <Maintenance window>

'Maintenance' window is displayed.

(Separate Model)



(Single Cabinet Model)



[PRE-PROCEDURE B]

— OUTLINE —

- ① Select drive (status check).
- ② Check progress of copy processing
- ③ Specify Replacement.
- ④ Place HDD into unpluggable state.

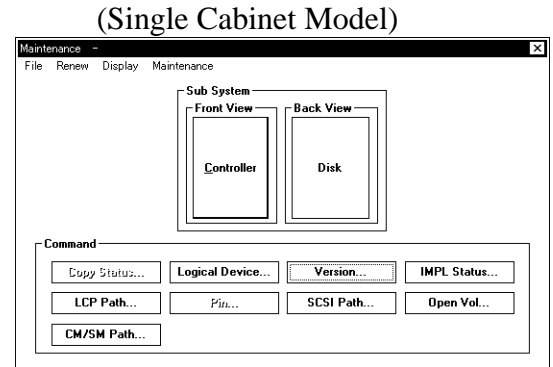
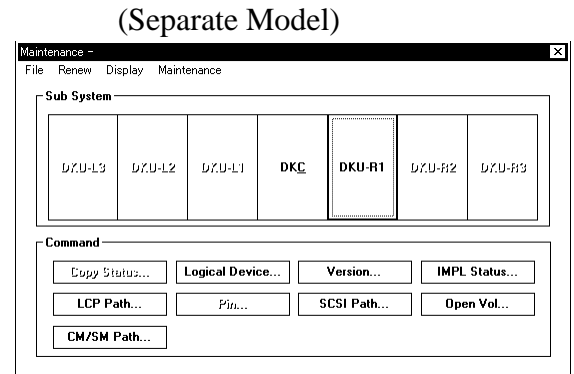
1. <Maintenance window>

(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Disk] to be replaced.



2. <Select HDU-BOX>

(Separate Model)

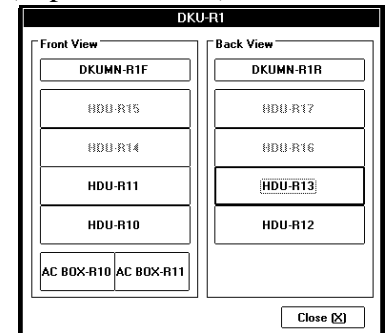
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

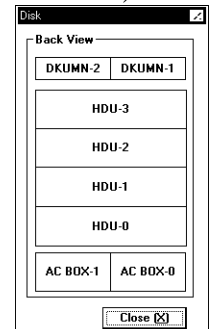
Check and select (CL) [HDU-n] to be replaced.

Selecting (CL) [Close] returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select HDD>

(Separate Model)

Check and select (CL) [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select (CL) [nn] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

HDU-R10														FAN-R10			
MPS0	MPS1	R10B	R109	R107	R105	R103	R101							FSW-L	FSW-R		
		R10A	R108	R106	R104	R102	R100										
														Port 1	Port 0		

12V Status: Normal 5V Status: Normal

Close [X]

(Single Cabinet Model)

HDU-1														FAN-1			
MPS0	MPS1	1B	19	17	15	13	11							FSW-L	FSW-R		
		1A	18	16	14	12	10										
														Port 1	Port 0		

12V Status: Normal 5V Status: Normal

Close [X]

4. <Specify replacement on HDD>

Check status display.

- ◆ In the case of a warning SIM, "NORMAL" is displayed.
- ◆ In the case of a blocking SIM, "FAILED" is displayed.

Select (CL) [Replace].

Device Type: DK318-ST Close [X]

Group: Group 1-1 (RAID1)

Device Status: Normal

Port Status: Normal LDEV Detail

Buttons: Replace, Replace(INLINE), Restore, Blockade, Secure Disk, Restore Data, Correction Copy, Drive Interrupt, Regewal

5. <Check progress of copy processing>

(Separate Model)

Check the status (other than preventive) of [HDD-Rnnn] or [HDD-Lnnn] to be replaced from [HDU-Rnn] or [HDU-Lnn].

(Single Cabinet Model)

Check the status (other than preventive) of [HDD-nn] to be replaced from [HDU-n].

[Warning threshold value]

* [RECOVERING] : Copy processing is in progress.

[FAILED] (S/D set to S) : End of copy processing.

[Block threshold value]

* [FAILED] (S/D set to D) : Copy processing is in progress.

[FAILED] (S/D set to S) : End of copy processing.

6. <Check progress of copy processing>

See SVP section. ([SVP03-120](#))

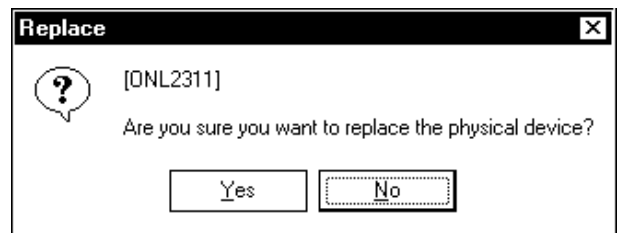
After copy processing is complete, perform replacement procedure.

7. <Checking the P-DEV status>
“Checking...” is displayed.

8. <P-DEV blocking>
Select (CL) [Yes] in response to “Are you sure you want to replace the physical device?”.

NOTICE

When the screen appears prompting the operator to input a password to prevent a multiple maintenance or for executing a pin check, contact the technical support center to ask for an instructions.



9. <Blocking the Physical device>
“Blocking...” is displayed.

10. <Spin down the Physical device>
“Spinning down...” is displayed.

11. <Check shut down LED>

Check the shut down LED on the HDD to be replaced.

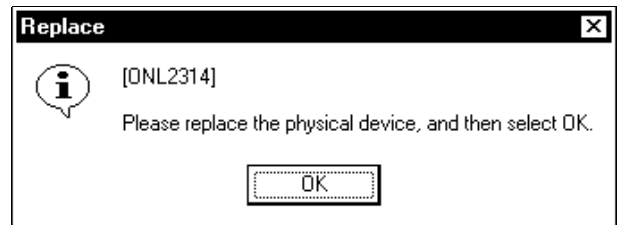
If LED is off, reconfirm the location of the HDD to be replaced with LOCATION SECTION before replacing hardware.

NOTICE

If a wrong HDD is removed, a data loss or a system down may be caused.

12. <Confirm Replacement.>

Select (CL) [OK] in response to “Please replace the physical device, and then select OK.” after replace the unit.



13. <Replace HDU>

Replace HDU .

See HARDWARE A ([REP03-10](#)).

[PRE-PROCEDURE C]

— OUTLINE —

- ① Select drive (status check).
- ② Specify Replacement.
- ③ Save Spare.

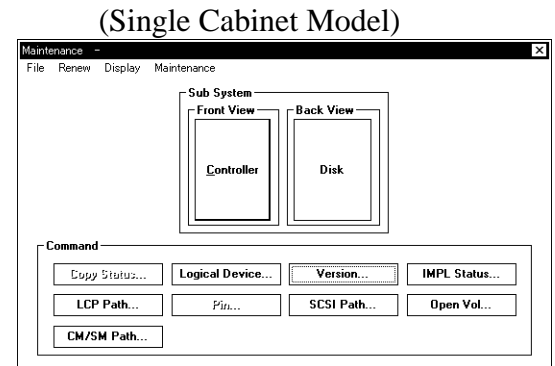
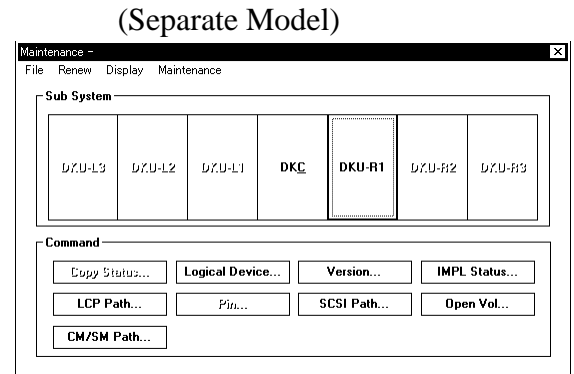
1. <Maintenance window>

(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

(Single Cabinet Model)

In the 'Maintenance' window, select (CL) [Disk].



2. <Select HDU-BOX>

(Separate Model)

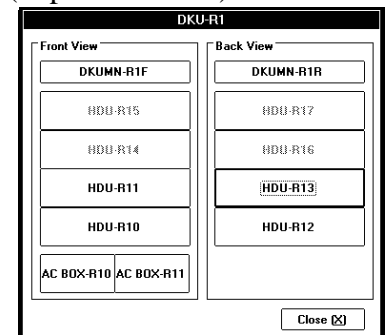
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

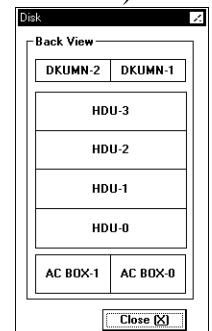
Check and select (CL) [HDU-n] to be replaced.

Selecting (CL) [Close] returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select HDD>

(Separate Model)

Check and select (CL) [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select (CL) [nn] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

FAN-R10															
MPS0	MPS1	R10B	R109	R107	R105	R103	R101							FSW-L	FSW-R
		R10A	R108	R106	R104	R102	R100								

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

(Single Cabinet Model)

FAN-1															
MPS0	MPS1	1B	19	17	15	13	11							FSW-L	FSW-R
		1A	18	16	14	12	10								

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

4. <Specify replacement on HDD>

Check status display.

- ◆ In the case of a warning SIM, “NORMAL” is displayed.
- ◆ In the case of a blocking SIM, “FAILED” is displayed.

Select (CL) [Spare Disk].

Device Type: DK318-ST

Group: Group 1-1 (RAID1)

Device Status: Normal

Port Status: Normal

Close [X]

Replace, Replace(INLINE), Restore, Blockade, Secure Disk, Restore Data, Correction Copy, Drive Interrupt, LDEV Detail, Regewal

5. <Checking the P-DEV status>

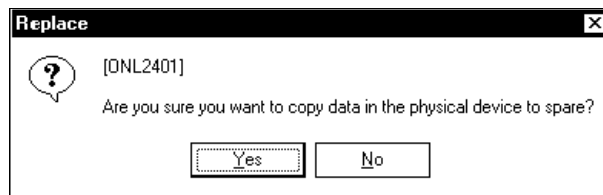
“Checking...” is displayed.

NOTICE

When the screen appears prompting the operator to input a password to prevent a multiple maintenance or for executing a pin check, contact the technical support center to ask for an instructions.

6. <Saving the spare>

Select (CL) [Yes] in response to “Are you sure you want to copy data in the physical device to spare?”.

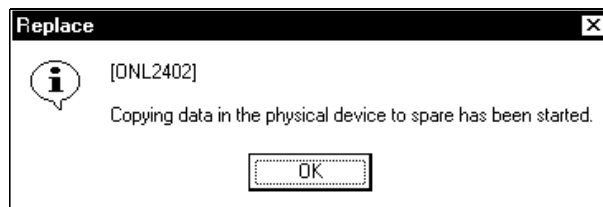


7. <Saving in process>

“Copying...” is displayed.

8. <End of spare saving>

Select (CL) [OK] in response to “Copying data in the physical device to spare has been started.”.



9.

Please do Pre B after finishing copy. ([REP02-30](#))

[PRE-PROCEDURE D]

— OUTLINE —

- ① Select P-DEV (status check).
- ② Specify Replacement.
- ③ Place HDD into unpluggable state.

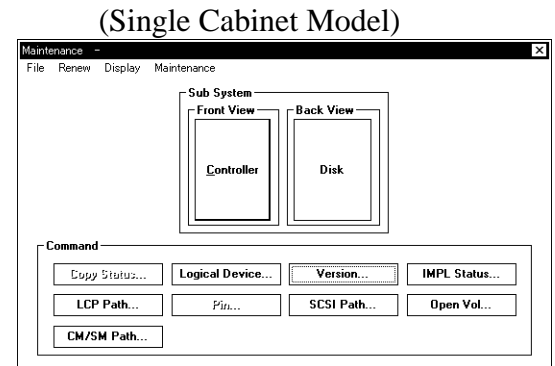
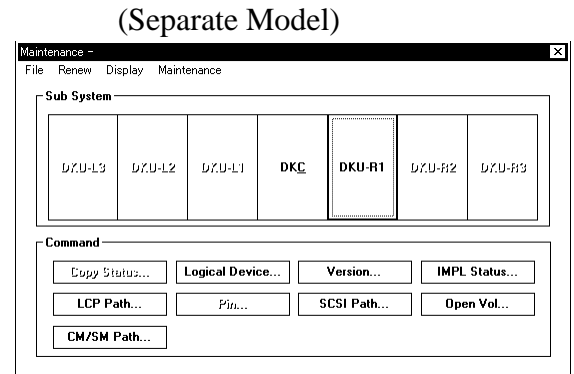
1. <Maintenance window>

(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

(Single Cabinet Model)

In the 'Maintenance' window, select (CL) [Disk].



2. <Select HDU-BOX>

(Separate Model)

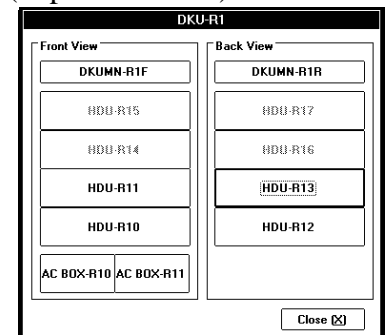
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

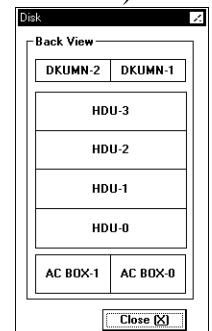
Check and select (CL) [HDU-n] to be replaced.

Selecting [Close] (CL) returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select HDD>

(Separate Model)

Check and select (CL) [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select (CL) [nn] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

FAN-R10															
MPS0	MPS1	R10B	R109	R107	R105	R103	R101							FSW-L	FSW-R
		R10A	R108	R106	R104	R102	R100								

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

(Single Cabinet Model)

FAN-1															
MPS0	MPS1	1B	19	17	15	13	11							FSW-L	FSW-R
		1A	18	16	14	12	10								

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

4. <Specify replacement on HDD>

Check status display.

- ◆ In the case of a warning SIM, "NORMAL" is displayed.
- ◆ In the case of a blocking SIM, "FAILED" is displayed.

Select (CL) [Replace].

Device Type: DK318-ST

Group: Group 1-1 (RAID1)

Device Status: Normal

Port Status: Normal

LDEV Detail: Regenral

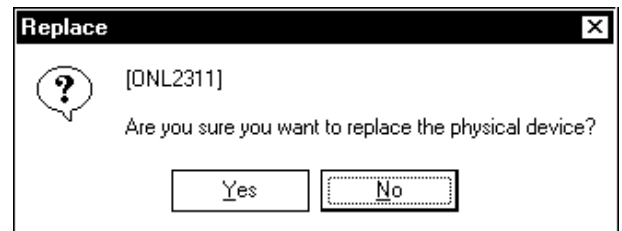
Close [X]

5. <Checking the P-DEV status & saving the spare>
“Checking...” is displayed.

NOTICE

When the screen appears prompting the operator to input a password to prevent a multiple maintenance or for executing a pin check, contact the technical support center to ask for an instructions.

6. <P-DEV blocking>
Select (CL) [Yes] in response to “Are you sure you want to replace the physical device?”.



7. <Blocking the Physical device>
“Blocking...” is displayed.

8. <Spin down the Physical device>
“Spinning down...” is displayed

9. <Check shut down LED>

Check the shut down LED on the HDD to be replaced.

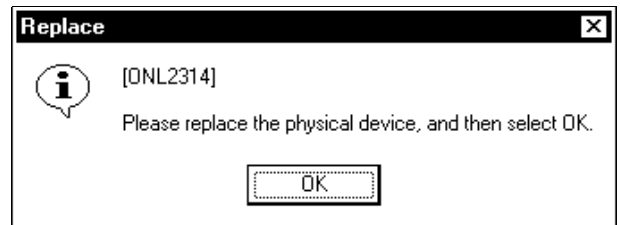
If LED is off, reconfirm the location of the HDD to be replaced with LOCATION SECTION before hardware work.

NOTICE

If a wrong HDD is removed, a data loss or a system down may be caused.

10. <Confirmation of replace>

Select (CL) [OK] in response to “Please replace the physical device, and then select OK.” after replace the unit (Step 11).



11. <Replace HDD>

Replace HDD.

See HARDWARE A ([REP03-10](#)).

[PRE-PROCEDURE E]

— OUTLINE —

- ① Select HDD (status check).
- ② Specify Replacement.
- ③ Block parity group (enter password).
- ④ Place HDD into unpluggable state.
- ⑤ Replace HDD.
- ⑥ Perform steps ② to ⑤ on blocked drives in parity group.

NOTICE

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

1. <Maintenance window>

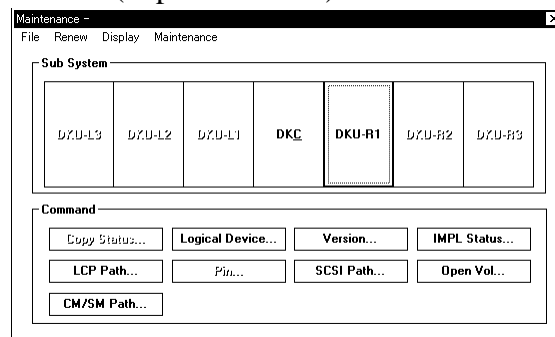
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

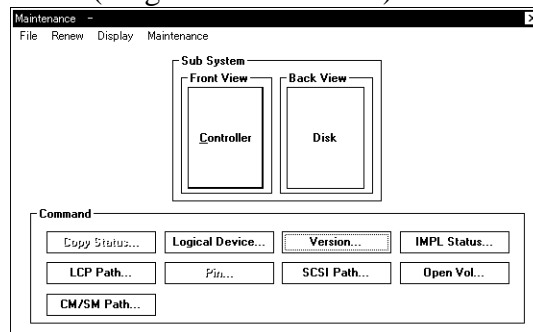
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Disk] to be replaced.

(Separate Model)



(Single Cabinet Model)



2. <Select HDU-BOX>

(Separate Model)

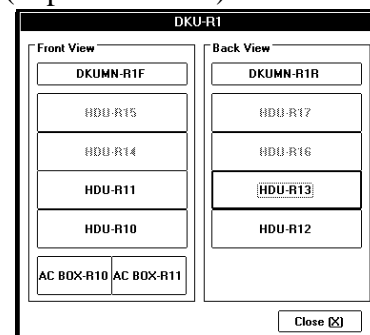
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

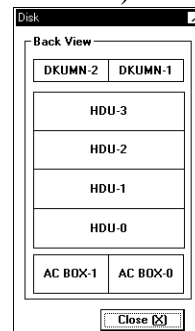
Check and select (CL) [HDU-n] to be replaced.

Selecting [Close] (CL) returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select HDD>

(Separate Model)

Check and select (CL) [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select (CL) [nn] to be replaced.

Selecting [Close] (CL) returns you to step 2.

(Separate Model)

MPS0		MPS1		FAN-R10							
				R10B	R109	R107	R105	R103	R101		
				R10A	R108	R106	R104	R102	R100	FSW-L	FSW-R

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

(Single Cabinet Model)

MPS0		MPS1		FAN-1							
				1B	19	17	15	13	11		
				1A	18	16	14	12	10	FSW-L	FSW-R

Port 1 Port 0

12V Status: Normal 5V Status: Normal

Close [X]

4. <Specify replacement on HDD>

Make sure that the status is FAILED.

Select (CL) [Replace].

Device Type: DK318-ST

Group: Group 1-1 (RAID1)

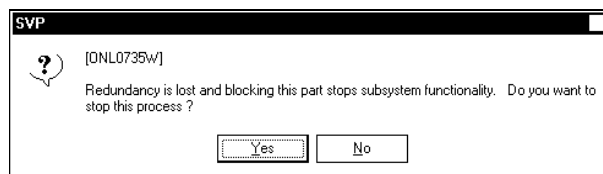
Device Status: Normal

Port Status: Normal

Buttons: Close [X], Replace, Replace(INLINE), Restore, Blockade, Secure Disk, Restore Data, Correction Copy, Drive Interrupt, LDEV Detail, Regewal

5. <Confirm lost data>

Select (CL) [No] in response to “Redundancy is lost and blocking this part stops subsystem functionality. Do you want to stop this process?”

**NOTICE**

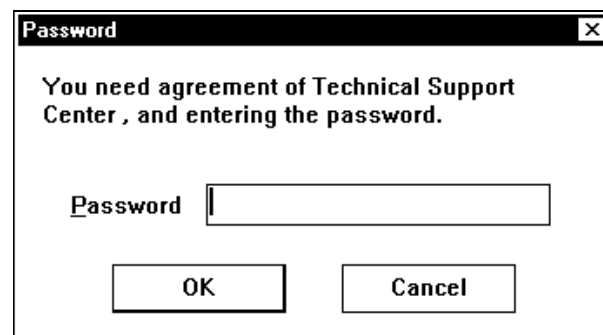
Executing this operation may cause a serious error such as a system down or a data loss. Accordingly, confirmation of the appropriateness of the operation and input of a password on the succeeding password input screen is required.

6. <Enter password>

Enter the password in response to “You need agreement of Technical Support Center, and entering the password.” and select (CL) [OK]. Password is needed for this operation.

NOTICE

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

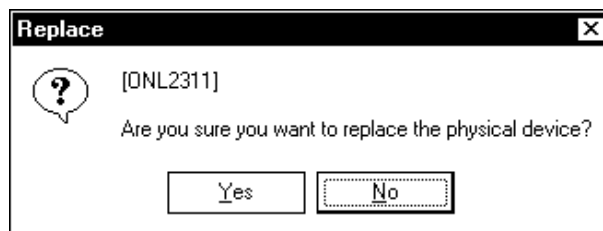


7. <Checking the P-DEV status>

“Checking...” is displayed.

8. <P-DEV blocking>

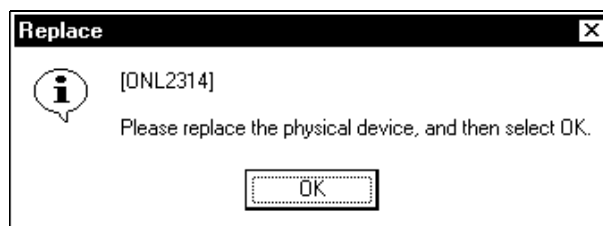
Select (CL) [Yes] in response to “Are you sure you want to replace the physical device?”.



-
9. <Blocking the Physical device>
“Blocking...” is displayed.

-
10. <Spin down the Physical device>
“Spinning down...” is displayed.
Shut down LED lit.

-
11. <Replace HDU>
Select (CL) [OK] in response to “Please
replace the physical device, and then select
OK.” after replace the unit.
(See HARDWARE A ([REP03-10](#)))



-
12. <Replace HDD>
Replace HDD.
See HARDWARE A ([REP03-10](#)).

[PRE-PROCEDURE F]

— OUTLINE —

- ① Select (main platter) cache (status check).
- ② Specify Replacement.
- ③ Place PCB into unpluggable state.

1. <Maintenance window>
'Maintenance' window is displayed.

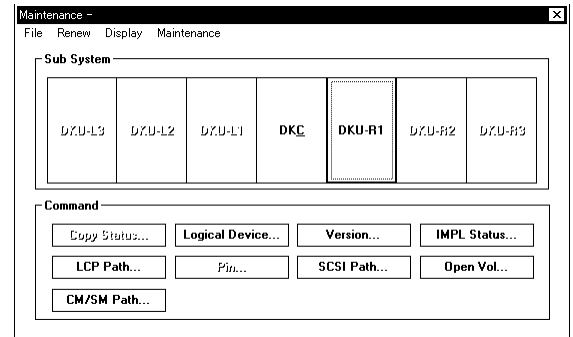
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

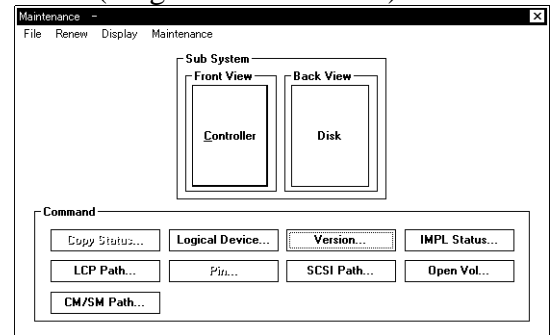
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)



2.

(Separate Model)

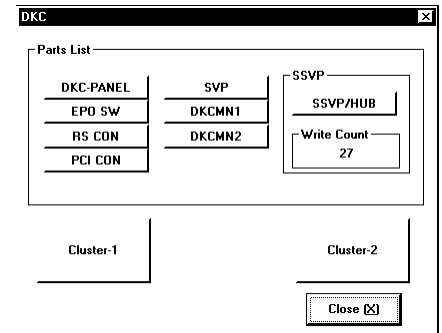
<DKC window>

Select (CL) [Cluster-n] in the 'DKC'.

(Single Cabinet Model)

<Controller window>

Select (CL) [Cluster-n] in the 'Controller'.



3. <Select Part> Select (CL) part.

(3-Phase Type for Separate Model)

(1-Phase Type for Separate Model)

(Single Cabinet Model)

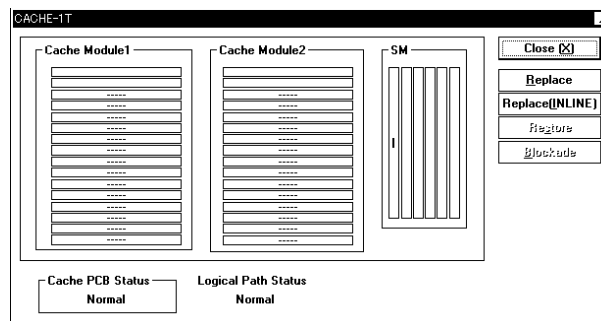
(ex. Cluster-1)

4. <Select Cache>

Check status display.

Select (CL) cache and select (CL) [Replace].

If INLINE CUDG in the Install or replace operation is failed, select (CL) [Replace (INLINE)] to recover target PCB.

**NOTICE**

When the screen appears prompting the operator to input a password to prevent a multiple maintenance or for executing a pin check, contact the technical support center to ask for an instructions.

5. <Check beginning of cache blocking>

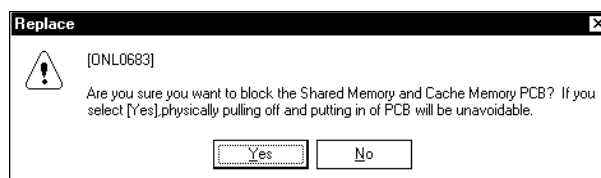
Select (CL) [Yes] after making sure that the package to be blocked is correct in response to:

* For CACHE (with SM) -- [Go to step 6]

“Are you sure you want to block the Shared Memory and Cache Memory PCB? If you select [Yes], physically pulling off and putting in of PCB will be unavoidable.”

* For CACHE ----- [Go to step 6]

“Are you sure you want to block the Cache Memory PCB? If you select [Yes], physically pulling off and putting in of PCB will be unavoidable.”



6. <Cache blocking>

“The Cache Memory PCB is being blocked.” is displayed.

“The Shared Memory PCB is being blocked...” is displayed.

7. <Check removal of cache>

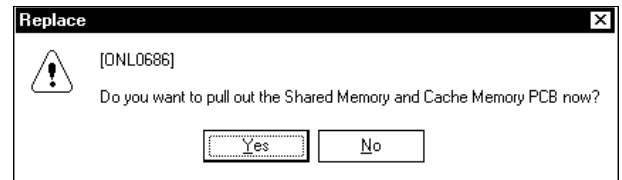
Select (CL) [Yes] in response to:

* For CACHE (with SM)

“Do you want to pull out the Shared Memory and Cache Memory PCB now?”

* For CACHE

“Do you want to pull out the Cache Memory PCB now?”



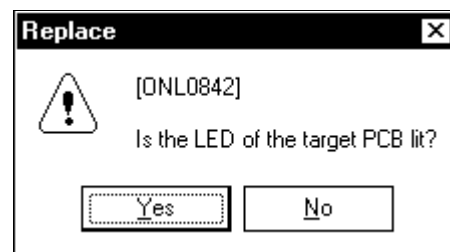
8. <Check shut down LED>

Select (CL)

* [Yes] if LED is on

* [No] if LED is off

in response to “Is the LED of the target PCB lit?”.



<Forcing shut down LED on>

NOTICE

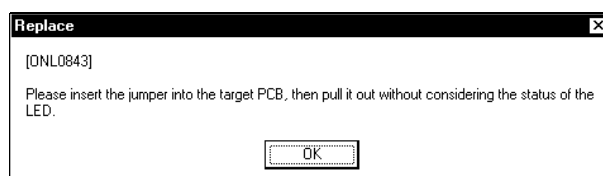
If the jumper is inserted in the wrong PCB, a system down may be caused.

If [No] is selected:

Insert a jumper in response to “Please insert jumper into the target PCB, then pull it out without considering the status of the LED”.

(Refer [REP03-50](#))

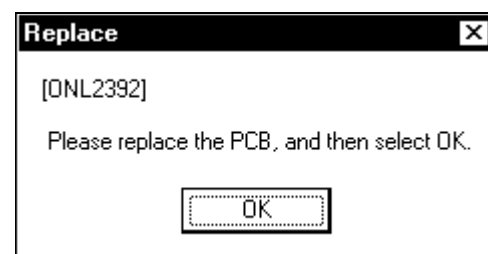
Go to step 9.



9. <Cache Replacement>

“Please replace the PCB, and then select OK.” is displayed.

(Select (CL) [OK] after replacing the PCB.)



10. <Replace cache PCB>

Replace cache.

For CACHE (with SM) See HARDWARE B ([REP03-40](#))

[PRE-PROCEDURE H]

— OUTLINE —

- ① Select CHA/DKA (status check).
- ② Specify Replacement.
- ③ Place PCB into blocked state.

1. <Set path offline>
Set the path offline from HOST when replacing CHA by your customer.

NOTICE

The path to be placed offline is that connected with the CHA concerned.

2. <Maintenance window>
'Maintenance' window is displayed.

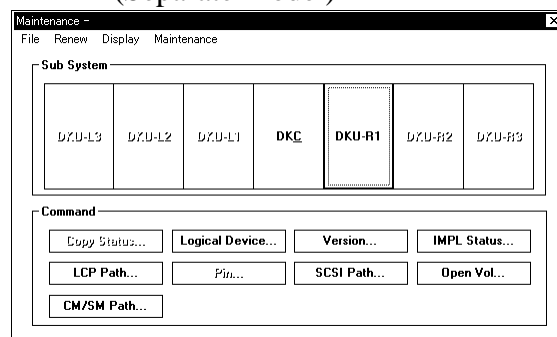
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

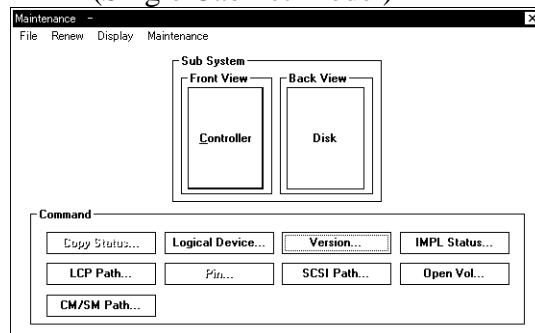
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



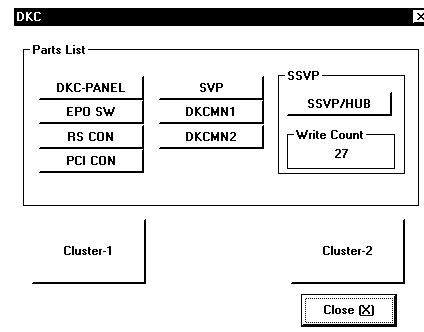
(Single Cabinet Model)



3. (Separate Model)
<DKC window>
Select (CL) [Cluster] in the 'DKC'.

(Single Cabinet Model)

<Controller window>
Select (CL) [Cluster] in the 'Controller'.



4. <Select CHA/DKA>
 Select (CL) CHA/DKA.
 Selecting (CL) [Close] returns you to step 3.

(3-Phase Type for Separate Model)

(1-Phase Type for Separate Model)

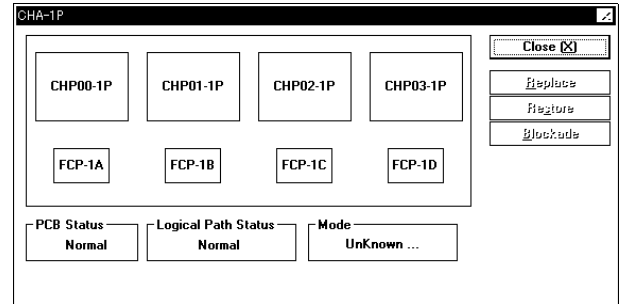
(Single Cabinet Model)

(ex. Cluster-1)

5. <Specify Replacement of CHA/DKA>
 Make sure that the status is WARNING.
 Select (CL) CHA/DKA PCB. The screen as
 shown on the right is displayed.
 Select (CL) [Replace].

NOTICE

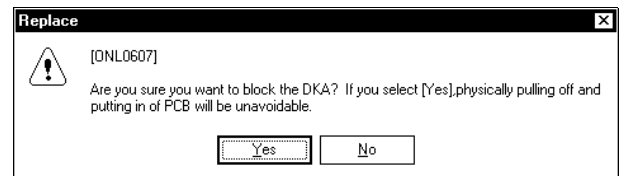
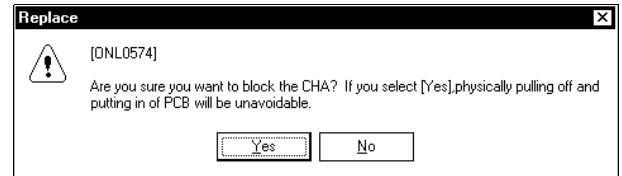
When the subsystem is placed online, ask the customer to place it offline.

**NOTICE**

When the screen prompting an operator to input a password in order to prevent a multiple maintenance, contact the technical support center to ask for an instruction.

6. <CHA/DKA blocking>
 Select (CL) [Yes] in response to:
 * For CHA
 “Are you sure you want to block the CHA? If
 you select [Yes], physically pulling off and
 putting in of PCB will be unavoidable.”
 Go to step 7.

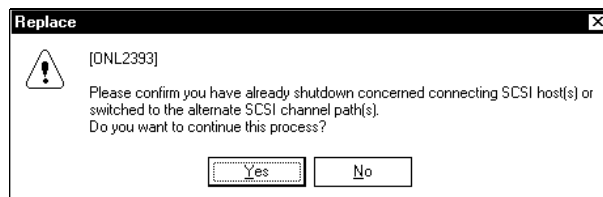
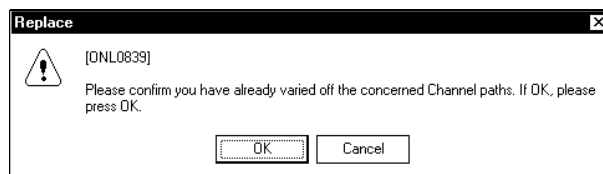
 * For DKA
 “Are you sure you want to block the DKA? If
 you select [Yes], physically pulling off and
 putting in of PCB will be unavoidable.”
 Go to step 8.



7. <Confirm Channel Path offline>

Select (CL) [OK] in response to:
 “Please confirm you have already varied off the concerned Channel paths. If OK, please press OK.”

If SCSI channel adapter is installed:
 After you confirm that you have stopped concerned SCSI channel paths, select (CL) [Yes].



8. <Caution message for system down>

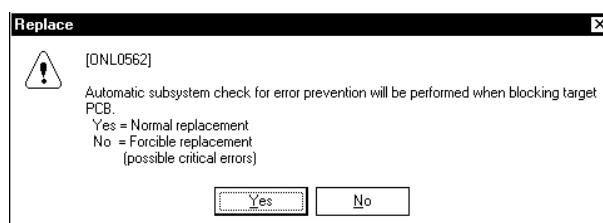
NOTICE

Select (CL) [Yes] in response to the message below.

“Automatic subsystem check for error prevention will be performed when blocking target PCB.

Yes = Normal replacement

No = Forcible replacement
 (Possible critical errors)”



9. <CHA/DKA blocking>

* For CHA

“The CHA is being blocked...”

* For DKA

“The DKA is being blocked...”

10. <Removal of CHA/DKA>

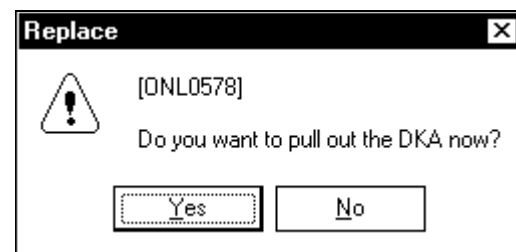
Select (CL) [Yes] in response to:

* For CHA

“Do you want to pull out the CHA now?”

* For DKA

“Do you want to pull out the DKA now?”



11. <Check to see if shut down LED is lit>

Select (CL)

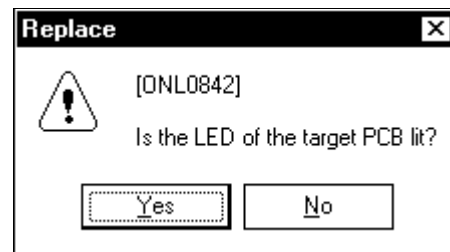
* [Yes] if LED is on

* [No] if LED is off

in response to “Is the LED of the target PCB lit?”.

If [No] is selected:

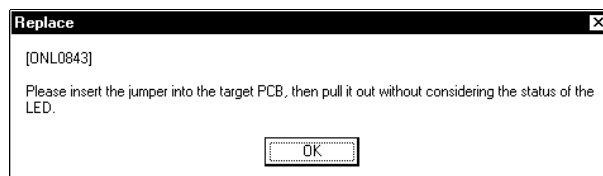
Select in response to “Is the LED of the target PCB lit?” again.



<Forcing shut down LED on>

NOTICE

If the jumper is inserted in the wrong PCB, a system down may be caused.



If [No] is selected twice:

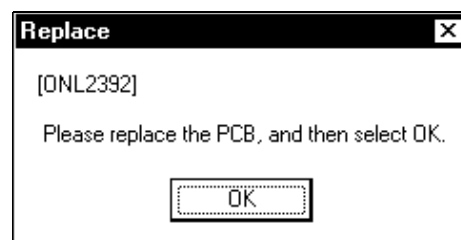
Insert a jumper in response to “Please insert the jumper into the target PCB, then pull it out without considering the status of the LED”. (Refer [REP03-80](#))

For Serial CHA	HARDWARE C (REP03-80)
For Fibre CHA	HARDWARE D (REP03-110)
For DKA	HARDWARE E (REP03-140)

12. <Beginning of CHA/DKA Replacement>

“Please replace the PCB, and then select OK.” is displayed. Select (CL) [OK] after replacing the PCBs

For Serial CHA	Go to HARDWARE C (REP03-80)
For Fibre CHA	Go to HARDWARE D (REP03-110)
For DKA	Go to HARDWARE E (REP03-140)



13. <Waiting for Power Event>

“Waiting for Power Event...”

Usually several minutes (maximum 10 minutes).” is displayed.

[PRE-PROCEDURE K]

— OUTLINE —

- ① Select drive (status check).
- ② Check progress of copy processing
- ③ Specify Correction Copy
- ④ Save Spare

1. <Maintenance window>

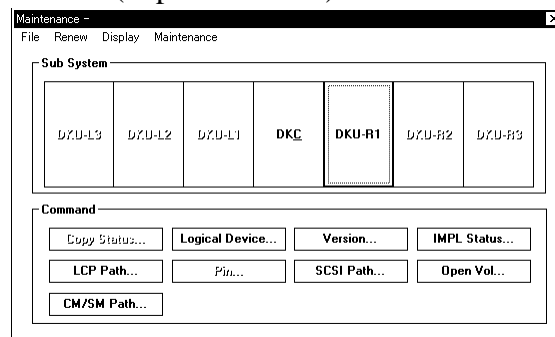
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

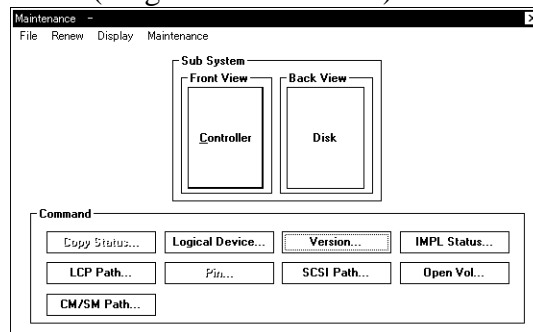
(Single Cabinet Model)

In the 'Maintenance' window, select (CL) [Disk].

(Separate Model)



(Single Cabinet Model)



2. <Select HDU-BOX>

(Separate Model)

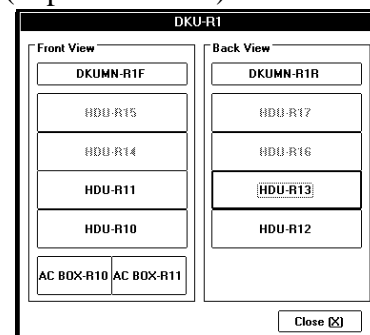
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

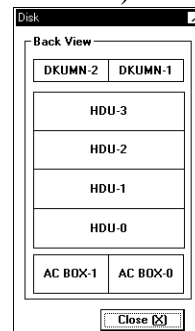
Check and select (CL) [HDU-n] to be replaced.

Selecting (CL) [Close] returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select HDD>

(Separate Model)

Check and select [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select [nn] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

HDU-R10												FAN-R10			
MPS0	MPS1	R10B	R109	R107	R105	R103	R101			FSW-L	FSW-R				
		R10A	R108	R106	R104	R102	R100					Port 1	Port 0		

12V Status: Normal 5V Status: Normal

Close [X]

(Single Cabinet Model)

HDU-1												FAN-1			
MPS0	MPS1	1B	19	17	15	13	11			FSW-L	FSW-R				
		1A	18	16	14	12	10					Port 1	Port 0		

12V Status: Normal 5V Status: Normal

Close [X]

4. <Specify replacement on HDD>

Check status display.

- ◆ In the case of a warning SIM, "NORMAL" is displayed.
- ◆ In the case of a blocking SIM, "FAILED" is displayed.

Select (CL) [Correction Copy].

HDD-R100

Device Type: DK318-ST Close [X]

Group: Group 1-1 (RAID1)

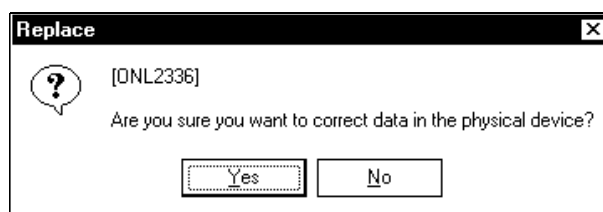
Device Status: Normal

Port Status: Normal

Replace
 Replace(INLINE)
 Restore
 Blockade
 Secure Disk
 Restore Data
 Correction Copy
 Drive Interrupt
 LDEV Detail
 Regewal

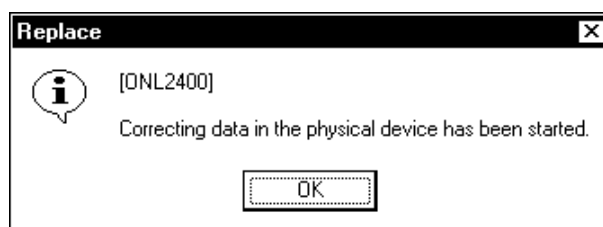
5. <Reading the subsystem configuration data and Checking the P-DEV status>
“Checking...” is displayed.

6. <Saving the spare>
Select (CL) [Yes] in response to “Are you sure you want to correct data in the physical device?”.



7. <Correction copy in progress>
“Correcting...” is displayed.

8. <End of starting correction copy>
Select (CL) [OK] in response to “Correcting data in the physical device has been started.”.



[PRE-PROCEDURE L]

— OUTLINE —

- ① Select FSW.
- ② Specify Replacement.
- ③ Please FSW into unpluggable state.

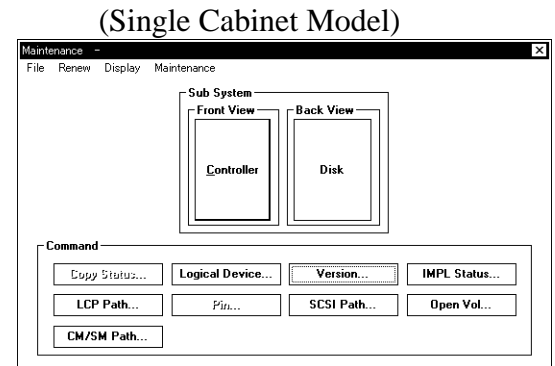
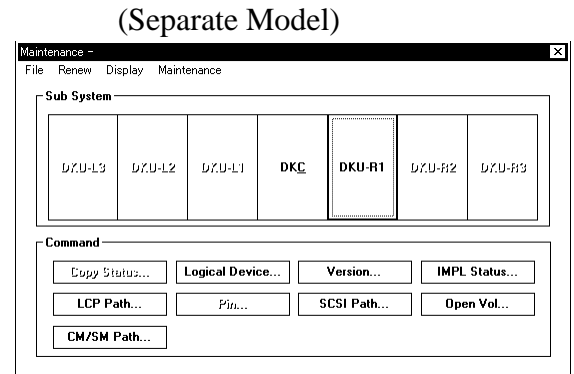
1. <Maintenance window>

(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Disk] to be replaced.



2. <Select HDU-BOX>

(Separate Model)

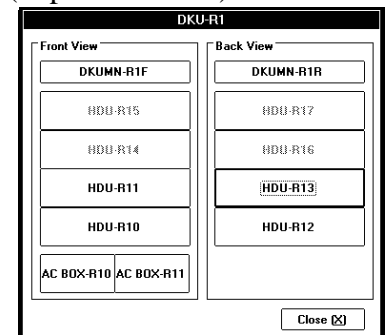
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

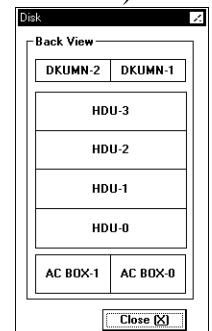
Check and select (CL) [HDU-n] to be replaced.

Selecting (CL) [Close] returns you to step 1.

(Separate Model)



(Single Cabinet Model)



3. <Select FSW>

Select (CL) [FSW-R] or [FSW-L] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

(Single Cabinet Model)

The correspondence DKA with location of the FSW is shown as follows.

For the location of the FSW, refer to [LOCATION02-100](#).

Separate Model

DKA ID	FCA ID			
	FCA 0	FCA 1	FCA 2	FCA 3
DKA-1B	FSW-R10R	FSW-R11R	FSW-R12R	FSW-R13R
	FSW-R20R	FSW-R21R	FSW-R22R	FSW-R23R
	FSW-R30R	FSW-R31R	FSW-R32R	FSW-R33R
DKA-1C	FSW-R14R	FSW-R15R	FSW-R16R	FSW-R17R
	FSW-R24R	FSW-R25R	FSW-R26R	FSW-R27R
	FSW-R34R	FSW-R35R	FSW-R36R	FSW-R37R
DKA-1D	FSW-L10R	FSW-L11R	FSW-L12R	FSW-L13R
	FSW-L20R	FSW-L21R	FSW-L22R	FSW-L23R
	FSW-L30R	FSW-L31R	FSW-L32R	FSW-L33R
DKA-1E	FSW-L14R	FSW-L15R	FSW-L16R	FSW-L17R
	FSW-L24R	FSW-L25R	FSW-L26R	FSW-L27R
	FSW-L34R	FSW-L35R	FSW-L36R	FSW-L37R
DKA-2H	FSW-R10L	FSW-R11L	FSW-R12L	FSW-R13L
	FSW-R20L	FSW-R21L	FSW-R22L	FSW-R23L
	FSW-R30L	FSW-R31L	FSW-R32L	FSW-R33L
DKA-2J	FSW-R14L	FSW-R15L	FSW-R16L	FSW-R17L
	FSW-R24L	FSW-R25L	FSW-R26L	FSW-R27L
	FSW-R34L	FSW-R35L	FSW-R36L	FSW-R37L
DKA-2K	FSW-L10L	FSW-L11L	FSW-L12L	FSW-L13L
	FSW-L20L	FSW-L21L	FSW-L22L	FSW-L23L
	FSW-L30L	FSW-L31L	FSW-L32L	FSW-L33L
DKA-2L	FSW-L14L	FSW-L15L	FSW-L16L	FSW-L17L
	FSW-L24L	FSW-L25L	FSW-L26L	FSW-L27L
	FSW-L34L	FSW-L35L	FSW-L36L	FSW-L37L

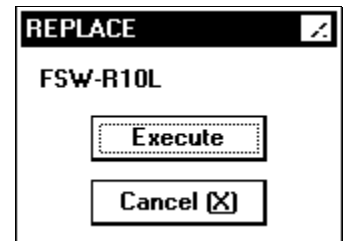
Single Cabinet Model

DKA ID	FCA ID			
	FCA 0	FCA 1	FCA 2	FCA 3
DKA-1B	FSW-0R	FSW-1R	FSW-2R	FSW-3R
DKA-2L	FSW-0L	FSW-1L	FSW-2L	FSW-3L

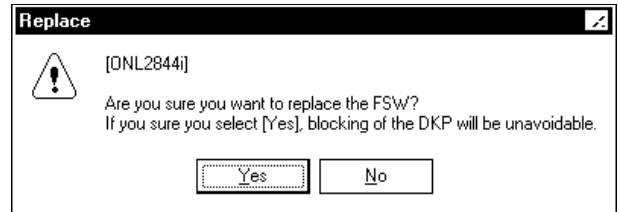
4. <Specify replacement>
Select (CL) [Execute].
Selecting (CL) [Cancel] returns you to step 3.

NOTICE

When the screen prompting an operator to input a password in order to prevent a multiple maintenance, contact the technical support center to ask for an instruction.



5. <Check beginning of DKP blocking>
Select (CL) [Yes] in response to “Are you sure you want to replace the FSW? If you select [Yes], blocking of the DKP will be unavoidable.”.



6. <Check system down>

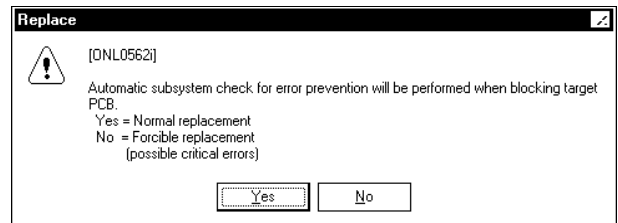
NOTICE

Select (CL) [Yes] in response to the message below.

“Automatic subsystem check for error prevention will be performed when blocking target PCB.

Yes = Normal replacement

No = Forcible replacement
(Possible critical errors)”



7. <Check DKP blocking>
“The DKP is being blocked...” is displayed.

8. <Replace FSW>

Remove FSW PCB, and insert it to turn off shut down LED.

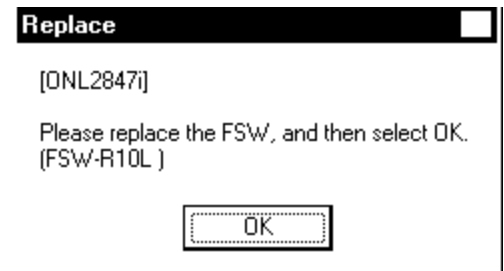
Refer HARDWARE T20 ([REP03-1070](#))

Select (CL) [OK] in response to “Please replace the FSW, and then select OK.” after replace the PCB.

If the FSW LED is not turn on, please remove FSW PCB, and insert it.

Perform FSW PCB Replacement procedure.

A pair of FSW PCBs which connected by same FSW Interface cable should be replaced at the same time.



[PRE-PROCEDURE M]

— OUTLINE —

- ① Select CSW (status check).
- ② Specify Replacement.
- ③ Place PCB into blocked state.

1. <Maintenance window>

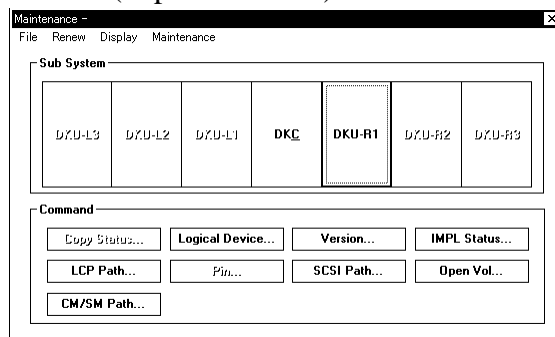
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

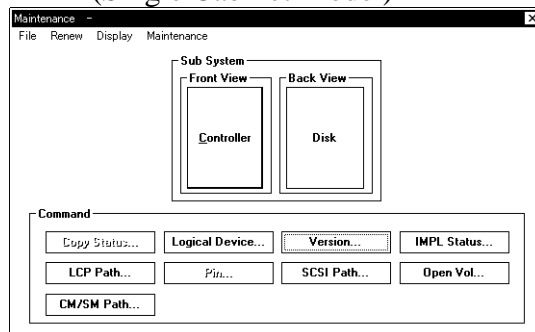
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)



2.

(Separate Model)

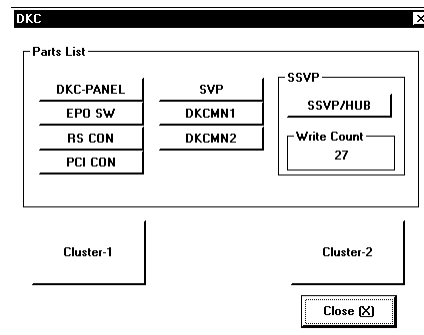
<DKC window>

Select (CL) [Cluster] in the 'DKC'.

(Single Cabinet Model)

<Controller window>

Select (CL) [Cluster] in the 'Controller'.



3. <Select CSW>
 Select (CL) [CSW]
 Selecting (CL) [Close] returns you to step 2.

(3-Phase Type for Separate Model)

(1-Phase Type for Separate Model)

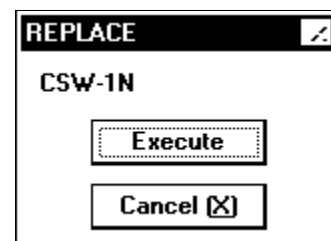
(Single Cabinet Model)

(ex. Cluster-1)

4. <Specify replacement>
 Select (CL) [Execute].
 Selecting (CL) [Cancel] returns you to step 3.

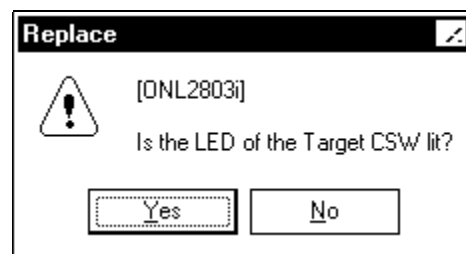
CAUTION

Be sure to operate within thirty minutes procedure 5 to 7.



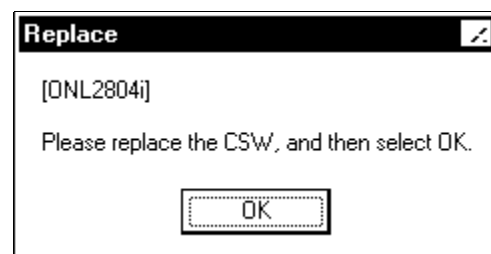
5. <Check CSW blocking>
 “Blocking the CSW...” is displayed.

6. <Check to see if shut down LED is lit>
 Select (CL)
 * [Yes] if LED is on
 * [No] if LED is off
 in replace to “Is the LED of the target CSW lit?”.
 If [No] is selected twice:
 Insert a jumper in response to “Please insert the jumper into the target PCB, then pull it out without considering the status of the LED”. (Refer REP03-170)



7. <Blocking of CSW replacement>
 “Please replace the CSW, and then select OK.” is displayed.
 Select (CL) [OK] after replacing the CSW.

Go to HARDWARE F (REP03-170)

**NOTICE**

If you take procedure 5 to 7 operation, ‘ONL0117E’ message displayed on SVP after you selected [OK]. Please start over again PRE-PROCEDURE M.

[PRE-PROCEDURE T1]

— OUTLINE —

- ① Select special (DKC) part (status check).
- ② Specify Replacement.
- ③ Detach parts related to special part.

[1] Select special part

NOTICE

When you want to replace the FLASH CARD, Complete SIM before operation.

1. <Maintenance window>

'Maintenance' window is displayed.

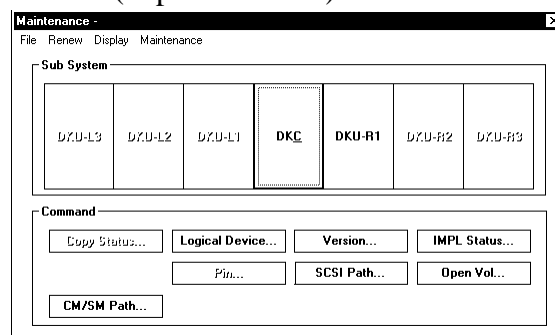
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

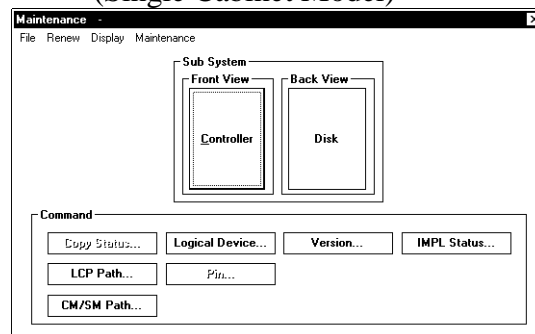
(Single Cabinet Model)

In the "Maintenance" window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)



2. <Specify special part>

(Separate Model)

Select (CL) part [XXXXXX] to be replaced from 'DKC'.

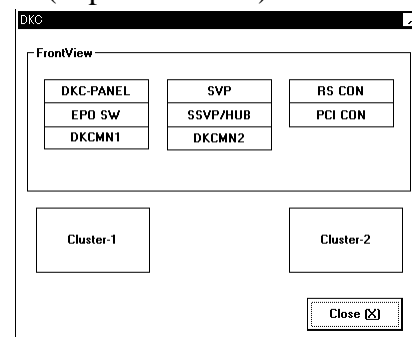
(Single Cabinet Model)

Select (CL) part [XXXXXX] to be replaced from 'Controller'.

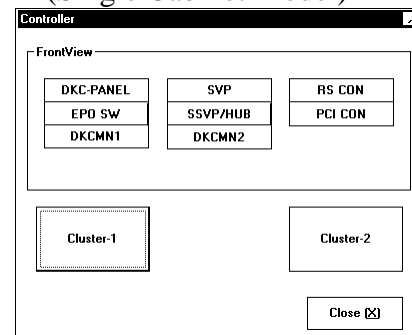
Valid [XXXXXX] values are listed below.

- DKC-PANEL ----- [DKC-PANEL]
- DKCMN ----- [DKCMN 1/2]
- PCI CON ----- [PCI CON]
- EPO SW ----- [EPO SW]
- SVP ----- [SVP] Go to 4.
- SSVP/HUB ----- [SSVP/HUB]
- RS CON ----- [RS CON]
- SVP&FLASH CARD- [SVP] Go to 4.
- FLASH CARD ----- [SVP] Go to 4.

(Separate Model)



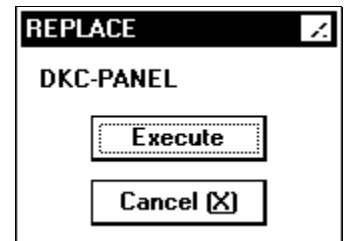
(Single Cabinet Model)



3. <Execute>
Select (CL) [Execute].
Go to 5.

NOTICE

When the screen prompting an operator to input a password in order to prevent a multiple maintenance, contact the technical support center to ask for an instruction.



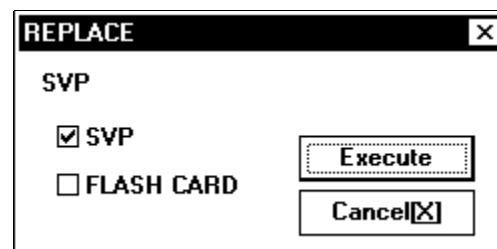
(ex. DKC-PANEL)

4. <Execute>

Select (CL) replacement parts [XXXXX], and select (CL) [Execute].

Valid [XXXXX] values are listed below.

- SVP -----[SVP]
- SVP&FLASH CARD-[SVP], [FLASH CARD]
- FLASH CARD -----[FLASH CARD]



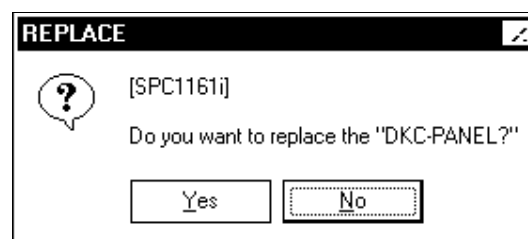
(ex. SVP)

5. <Check beginning of special part Replacement>

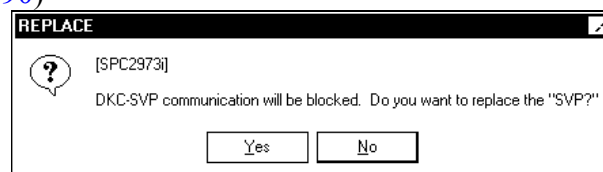
Select (CL) [Yes] in response to "Do you want to replace the "XXXXX?"".

XXXXX represents one of the part names listed in step 2.

- "DKC-PANEL" ----- Go to [2] ([REP02-420](#))
- "EPO SW" ----- Go to [3] ([REP02-430](#))
- "DKCMN 1/2" ----- Go to [5] ([REP02-460](#))
- "RS CON" ----- Go to [9] ([REP02-500](#))
- "SVP" ----- Go to [6] ([REP02-470](#))
- "SVP&FLASH CARD" - Go to [6] ([REP02-470](#))
- "FLASH CARD" ----- Go to [8] ([REP02-490](#))

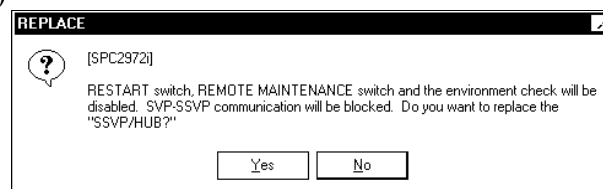


(ex. DKC-PANEL)

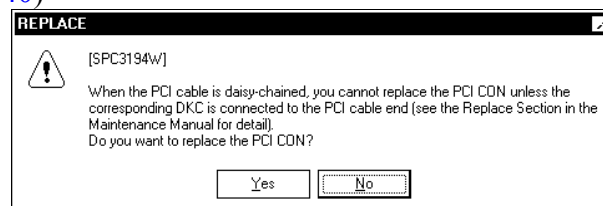


(ex. SVP)

- "SSVP/HUB" -----Go to [7] ([REP02-481](#))



- "PCI CON" ----- Go to [4] ([REP02-440](#))



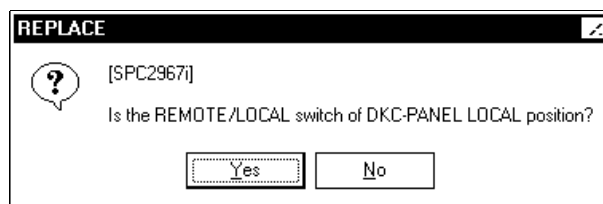
[2] DKC-PANEL

1. <Read environment monitor>

The SVP automatically read
REMOTE/LOCAL position of the CE part.
When SVP occurred read failure, “Is the
REMOTE/LOCAL switch of DKC-PANEL
LOCAL position?” is displayed.

In the case REMOTE/LOCAL switch is
LOCAL position, select (CL) [Yes].

In the case REMOTE/LOCAL switch is REMOTE position, select (CL) [No].



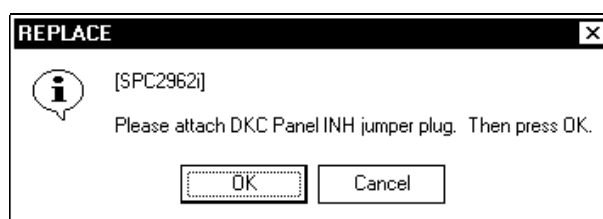
2. <Check jumper installation>

Attach jumper on DKCMN 1/2 in response to
“Please attach DKC Panel INH jumper plug.
Then press OK.”. (see [HARDWARE T1](#)
[\(REP03-200 step 2\)](#)).

Select (CL) [OK] after confirming that jumper
is attached.

Go to [9] ([REP02-500](#))

If jumper plug is not attached, go to step 3.

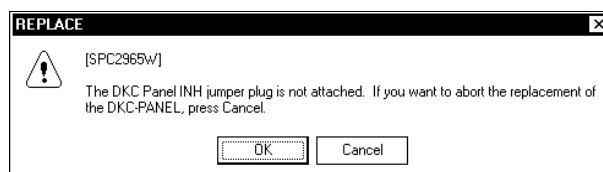


3. <Check jumper reinstallation>

“The DKC Panel INH jumper plug is not
attached. If you want to abort the replacement
of the DKC-PANEL, press Cancel.” is
displayed if no jumper is attached. Attach
jumper and select (CL) [OK].

Go to [9] ([REP02-500](#))

If jumper plug is not attached, step 3 again.



[3] EPO SW

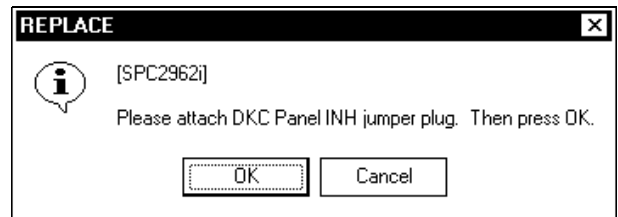
1. <Check jumper installation>

Attach jumper on DKCMN 1/2 in response to “Please attach DKC Panel INH jumper plug. Then press OK.”. (see **HARDWARE T2 (REP03-250 step 1)**).

Select (CL) [OK] after confirming that jumper is attached.

Go to [9] ([REP02-500](#)).

If jumper plug is not attached, go to 2.

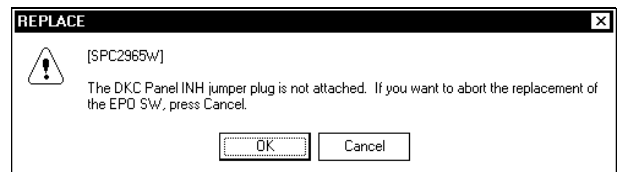


2. <Check jumper reinstallation>

“The DKC Panel INH jumper plug is not attached. If you want to abort the replacement of the EPO SW, press Cancel.” is displayed if no jumper is attached. Attach jumper and select (CL) [OK].

Go to [9] ([REP02-500](#)).

If jumper plug is not attached, step 2 again.

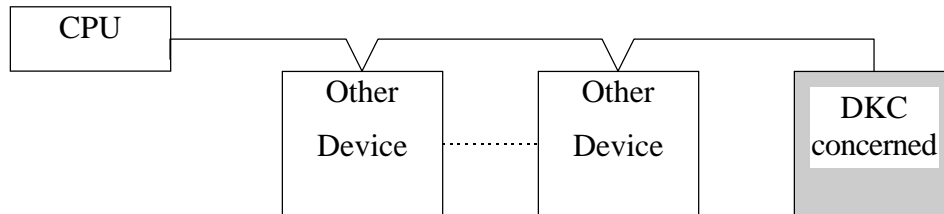


[4] PCI CON

NOTICE

Replacement of PCI CON Panel causes other devices running on the same PCI connection line to be powered off except a) and b) shown below (because giving the EPO instruction is assumed). Therefore, stop the other device before performing replacement.

- a) If PCI cable is not connected to the replacing DKC.
- b) If the replacing DKC (DKC concerned) is connected to the end of the PCI cable as shown below.



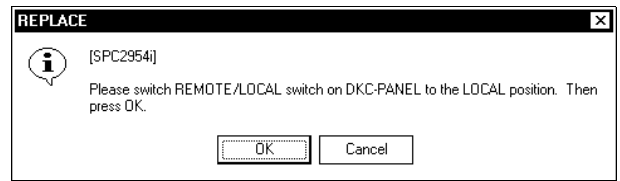
1. <Check DKC-PANEL switches>

Set REMOTE/LOCAL switch to LOCAL and select (CL) [OK] in response to "Please switch REMOTE/LOCAL switch, on "DKC-PANEL" to the LOCAL position. Then press OK.". (see HARDWARE T4 ([REP03-330 step 1](#)))

Select (CL) [OK] after confirming that REMOTE/LOCAL switch is LOCAL.

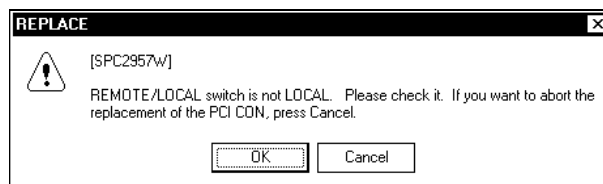
Go to step 3.

If REMOTE/LOCAL switch is not LOCAL, go to 2.



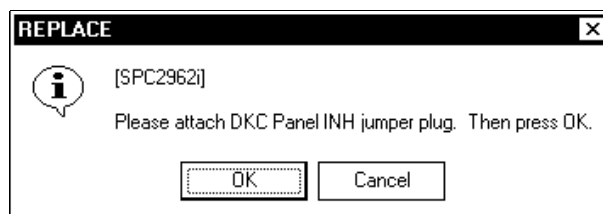
2. <Check that the REMOTE/LOCAL switch of DKC-PANEL is LOCAL>

“REMOTE/LOCAL switch is not LOCAL. Please check it. If you want to abort the replacement of the PCI CON, press Cancel.” is displayed if REMOTE/LOCAL switch is not LOCAL. Turn to LOCAL and select (CL) [OK], or [Cancel] to terminate replacing. If REMOTE/LOCAL switch is not LOCAL, step 2 again.



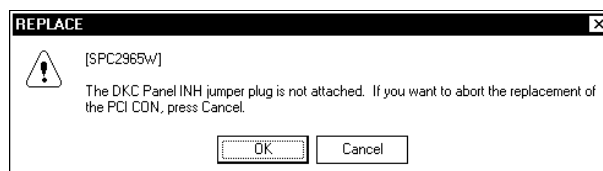
3. <Check jumper installation>

Attach jumper on DKCMN 1/2 in response to “Please attach DKC Panel INH jumper plug. Then press OK.”. (see [HARDWARE T4 \(REP03-340 step 2\)](#)). Select (CL) [OK] after confirming that jumper is attached. Go to [9] ([REP02-500](#)). If jumper plug is not attached, go to 4.



4. <Check jumper reinstallation>

“The DKC Panel INH jumper plug is not attached. If you want to abort the replacement of the PCI CON press Cancel.” is displayed if no jumper is attached. Attach jumper and select (CL) [OK]. Go to [9] ([REP02-500](#)). If jumper plug is not attached, step 4 again.



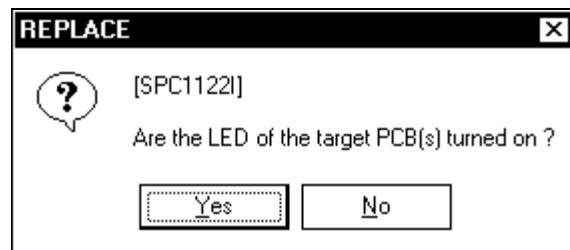
[5] DKCMN

1.

The message “Are the LED of the target PCB(s) turned on?” is displayed.

If you select (CL) [Yes], go to [9] ([REP02-500](#)).

If you select (CL) [No], go to step 2.



2.

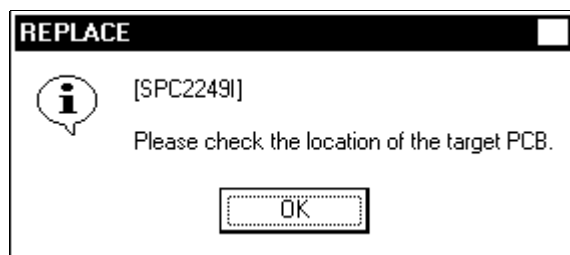
The message shown on the right is displayed.

Check the location of the DKCMN.

(see **HARDWARE T3** ([REP03-290](#)))

Select (CL) [OK].

Go to [9] ([REP02-500](#)).



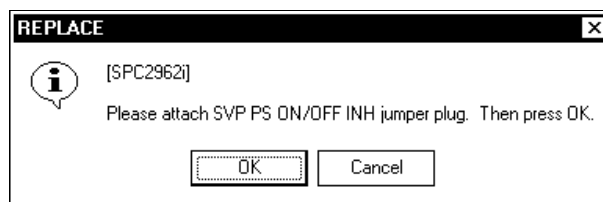
[6] SVP, SVP&FLASH CARD

1. <Attaching a jumper plug>

Attach a jumper plug to the RSCON following a message, "Please attach SVP PS ON/OFF INH jumper plug. Then press OK.". (see HARDWARE T7 (on page [REP03-420](#))). After checking that the jumper plug has been attached, select (CL) [OK].

Go to step 3.

When the jumper plug has not been attached, go to step 2.

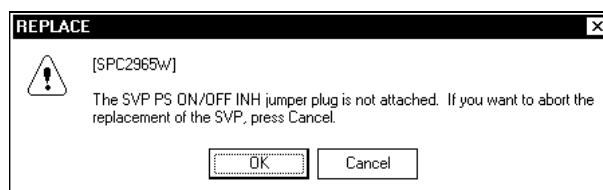


2. <Checking re-attachment of the jumper plug>

When the jumper plug has not been attached, a message, "The SVP PS ON/OFF INH jumper plug is not attached. If you want to abort the replacement of the SVP, press Cancel." is displayed. Attach the jumper plug and select (CL) [OK].

Go to step 3.

When the jumper plug has not been attached, execute step 2 again.



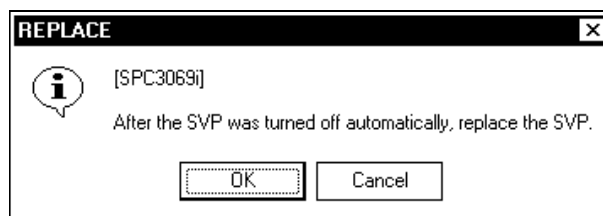
3.

The message "After the SVP was turned off automatically, replace the XXXXX." is displayed.

- In the case that SNMP Option is installed.
Go to 4.
- In the case that SNMP Option is not installed.

If the CD-ROM disk inserted into the CD-ROM drive, remove the CD-ROM disk. Select (CL) [OK], so SVP is turned off automatically. (See HARDWARE T7 ([REP03-410](#)))

[End of PRE-PROCEDURE]

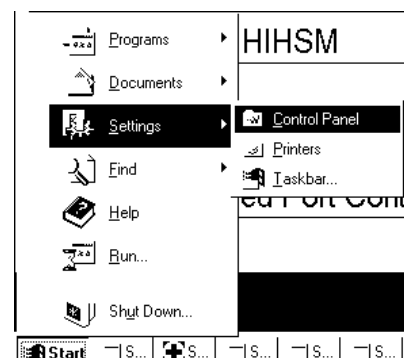


(ex. SVP)

4. <Check of SNMP Network> For Windows95/Windows98

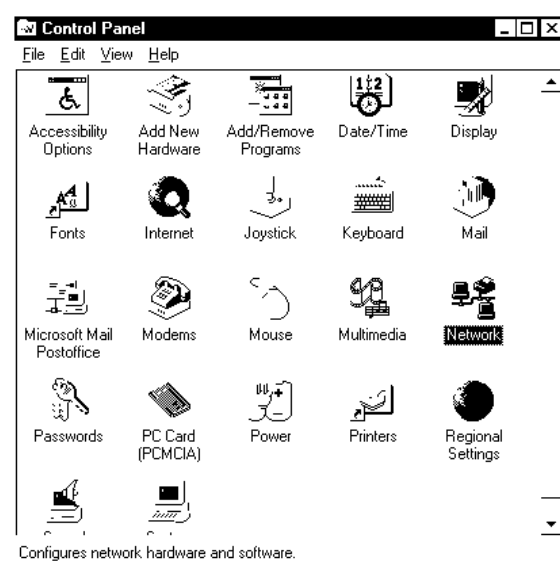
(1) <Open “Control Panel”>

Select (DR) [Settings] and then [Control Panel] from [Start]



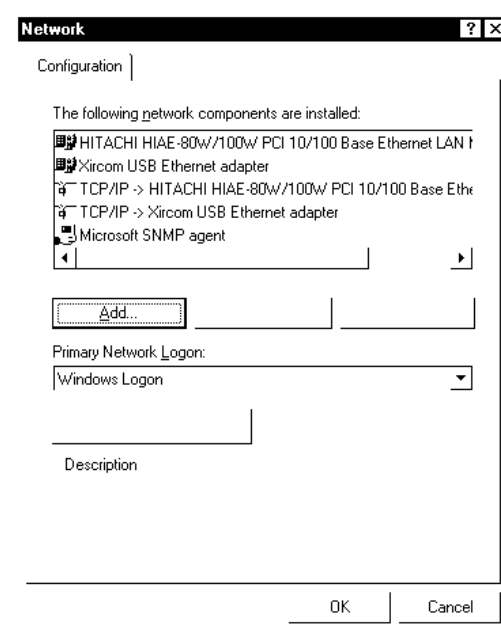
(2) <Open “Network”>

Select (DC) “Network” from “Control Panel”.



(3) <Open “TCP/IP Properties”>

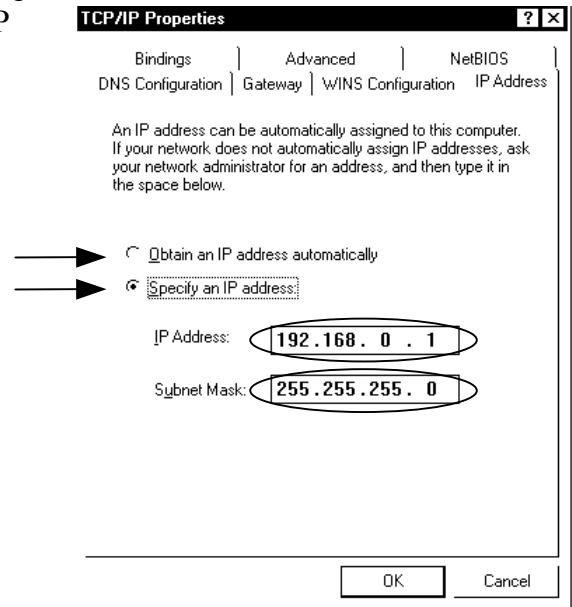
Select (CL) “TCP/IP -> Xircom USB Ethernet adapter” from “Configuration”, and select (CL) [Properties].



(4) <Check “IP Address” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “Obtain an IP Address Automatically” and “Specify an IP Address” to the work sheet.

Refrain from the setting of “IP Address” and “Subnet Mask” to the work sheet.



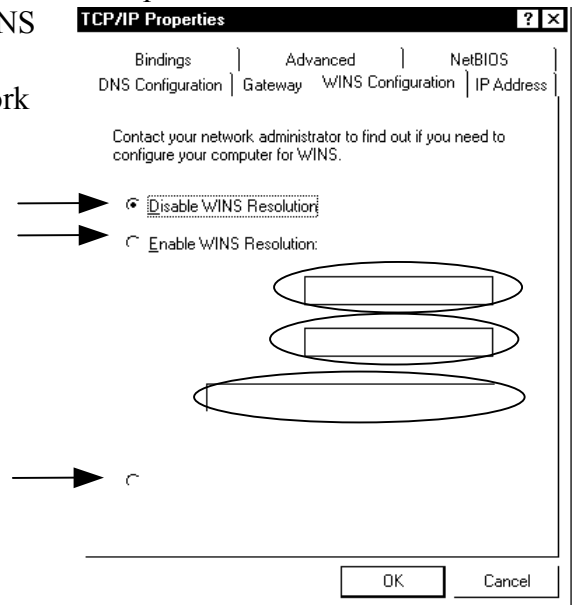
(ex. Default)

- b) Select (CL)“WINS Configuration” from “TCP/IP Properties”.

(5) <Check “WINS Configuration” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “Disable WINS Resolution”, “Enable WINS Resolution” and “Use DHCP for WINS Resolution” to the work sheet.

Refrain from the setting of “Primary WINS Server”, “Secondary WINS Server” and “Scope ID” to the work sheet.

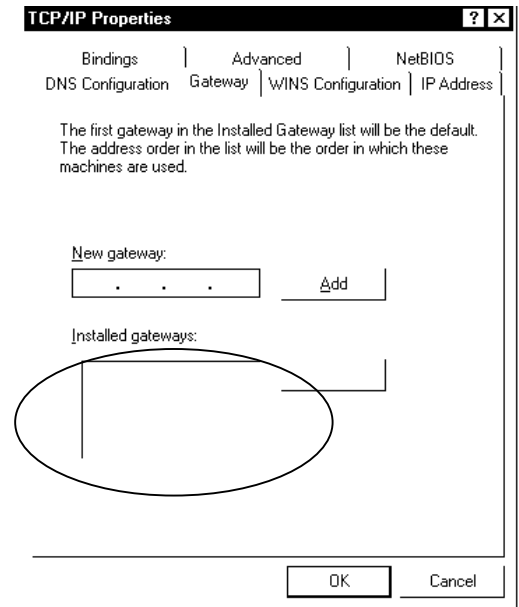


(ex. Default)

- b) Select (CL)“Gateway” from “TCP/IP Properties”.

(6) <Check “Gateway” for “Xircom USB Ethernet adapter”>

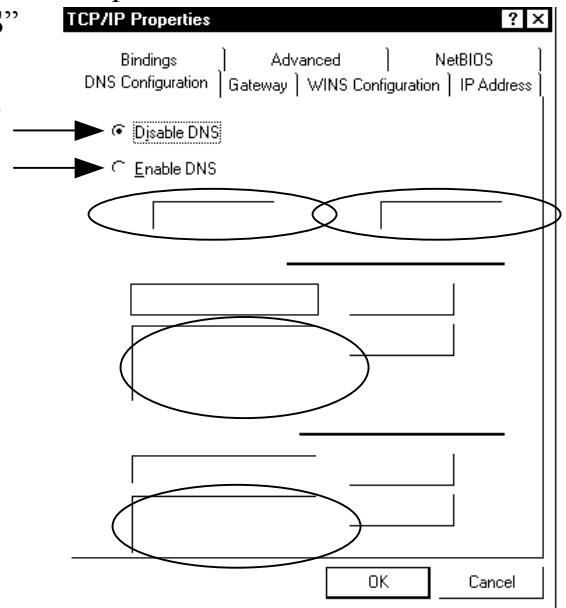
- a) Refrain from all the “Installed gateways” to the work sheet.



- b) Select (CL)“DNS Configuration” from “TCP/IP Properties”.

(7) <Check “DNS Configuration” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “Disable DNS” and “Enable DNS” to the work sheet.
Refrain from the setting of “Host”, “Domain”, “DNS Server Search Order” and “Domain Suffix Search Order” to the work sheet.

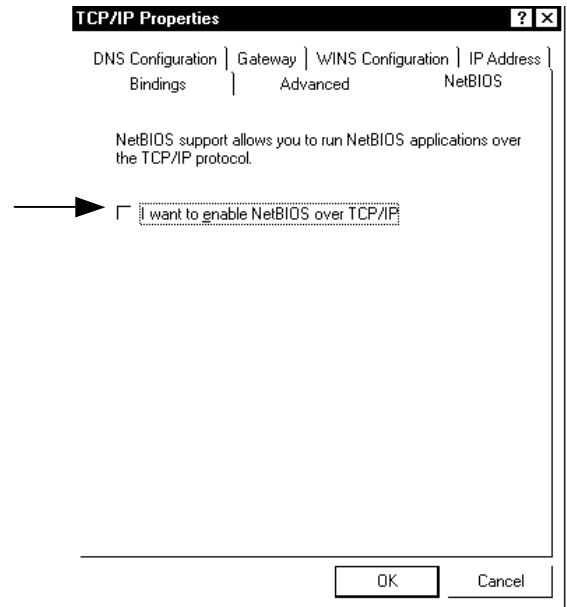


(ex. Default)

- b) Select (CL)“NetBIOS” from “TCP/IP Properties”.

(8) <Check “NetBIOS” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “I want to enable NetBIOS over TCP/IP” to the work sheet.

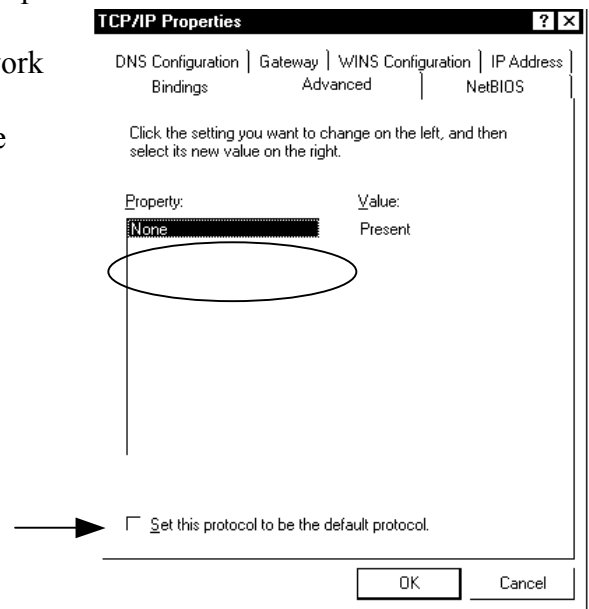


(ex. Default)

- b) Select (CL)“Advanced” from “TCP/IP Properties”.

(9) <Check “Advanced” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “Set this protocol to be the default protocol” to the work sheet.
Refrain from the setting of “Property” to the work sheet.

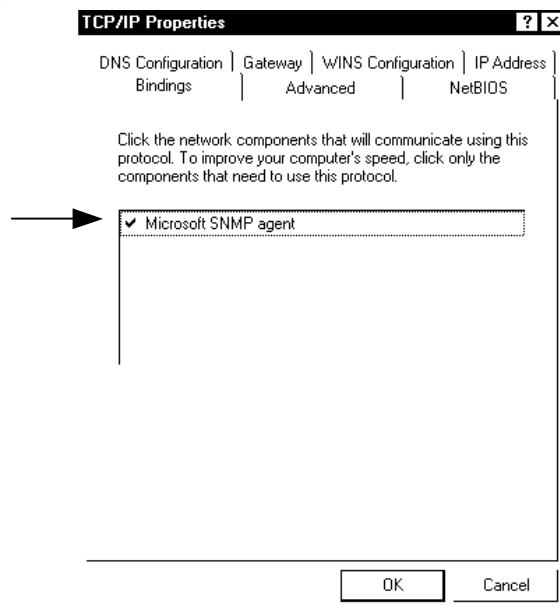


(ex. Default)

- b) Select (CL)“Binding” from “TCP/IP Properties”.

(10) <Check “Binding” for “Xircom USB Ethernet adapter”>

- a) Refrain from the check mark of “Microsoft SNMP agent” to the work sheet.

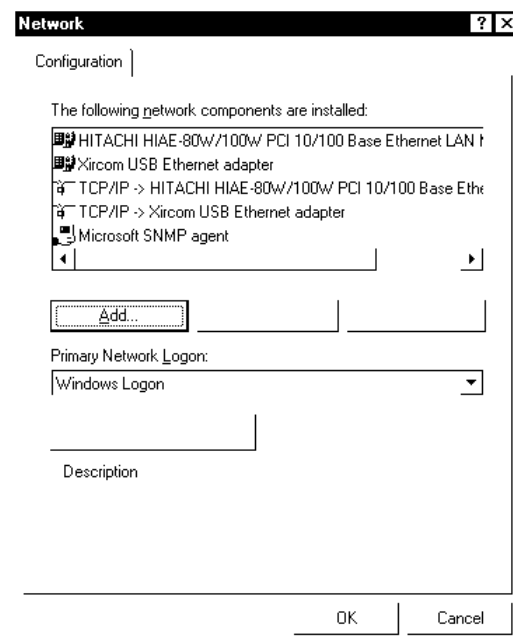


(ex. Default)

- b) Select (CL) “Cancel” from “TCP/IP Properties”.

(11) <Close “Network”>

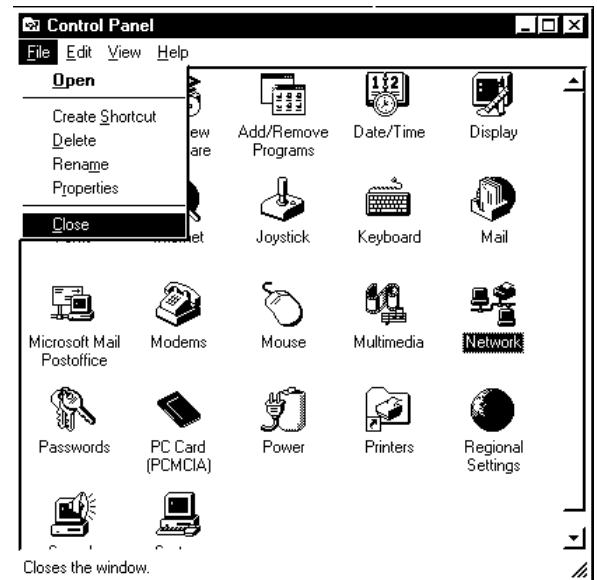
Select (CL) [Cancel] from “Configuration” of “Network”.



(12) <Close “Control Panel”>

Select (CL) [File] on “Control Panel”.

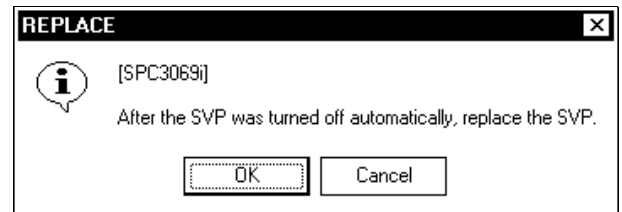
Select (CL) [Close].



(13) If the CD-ROM disk inserted into the CD-ROM drive, remove the CD-ROM disk.
Select (CL) [OK], so SVP is turned off automatically.

(See HARDWARE T7 ([REP03-410](#)))

[End of PRE-PROCEDURE]



(ex. SVP)

5. Work Sheet of SNMP Option Network Settings

(1) "IP Address"

"Obtain an IP Address Automatically" -- ☐

"Specify an IP Address" ----- ☐

"IP Address" ----- " . . . "

"Subnet Mask" ----- " . . . "

TCP/IP Properties

Bindings | Advanced | NetBIOS
DNS Configuration | Gateway | WINS Configuration | IP Address

An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.

☐ Obtain an IP address automatically

☒ Specify an IP address:

IP Address:

Subnet Mask:

OK Cancel

(2) "WINS Configuration"

"Disable WINS Resolution" ----- ☐

"Enable WINS Resolution" ----- ☐

"Primary WINS Server" ----- " . . . "

"Secondary WINS Server" ----- " . . . "

"Scope ID" ----- " "

"Use DHCP for WINS Resolution" ----- ☐

TCP/IP Properties

Bindings | Advanced | NetBIOS
DNS Configuration | Gateway | WINS Configuration | IP Address

Contact your network administrator to find out if you need to configure your computer for WINS.

☐ Disable WINS Resolution

☒ Enable WINS Resolution:

Primary WINS Server:

Secondary WINS Server:

Scope ID:

☐ Use DHCP for WINS Resolution

OK Cancel

“Installed gateways” ----- “ . . . ”

The screenshot shows the 'Advanced' tab of the 'TCP/IP Properties' dialog box. At the top, there are four tabs: 'Bindings', 'Advanced' (selected), 'NetBIOS', and 'DNS Configuration'. Below the tabs, there are four sections: 'DNS Configuration', 'Gateway' (selected), 'WINS Configuration', and 'IP Address'. The 'Gateway' section contains the text: 'The first gateway in the Installed Gateway list will be the default. The address order in the list will be the order in which these machines are used.' Below this text, there is a 'New gateway:' label followed by a text box containing three dots and an 'Add' button. Below that, there is an 'Installed gateways:' label followed by an empty list box. At the bottom of the dialog, there are 'OK' and 'Cancel' buttons.

TCP/IP Properties

Bindings | Advanced | NetBIOS | DNS Configuration

DNS Configuration | Gateway | WINS Configuration | IP Address

The first gateway in the Installed Gateway list will be the default. The address order in the list will be the order in which these machines are used.

New gateway:

. . . Add

Installed gateways:

OK Cancel

“Disable DNS” ----- ○

“Enable DNS” ----- ○

“Host” ----- “

“Host” ----- “

“Domain” ----- “

“DNS Server Search Order” ----- “ ”

“Domain Suffix Search Order” ----- “ ”

The screenshot shows the 'DNS Configuration' tab of the 'TCP/IP Properties' dialog box. At the top, there are four tabs: 'Bindings', 'Advanced', 'NetBIOS', and 'DNS Configuration'. The 'DNS Configuration' tab is active, showing options for 'DNS Configuration', 'Gateway', 'WINS Configuration', and 'IP Address'. Under 'DNS Configuration', there are two radio buttons: 'Disable DNS' (selected) and 'Enable DNS'. Below these are fields for 'Host:' and 'Domain:'. Further down is the 'DNS Server Search Order' section, which contains a list box with three dots and an 'Add' button. At the bottom is the 'Domain Suffix Search Order' section, which contains two empty text boxes. The 'OK' and 'Cancel' buttons are at the bottom right.

TCP/IP Properties

Bindings Advanced NetBIOS
DNS Configuration Gateway WINS Configuration IP Address

☒ Disable DNS
☐ Enable DNS

Host: Domain:

DNS Server Search Order

. . . Add

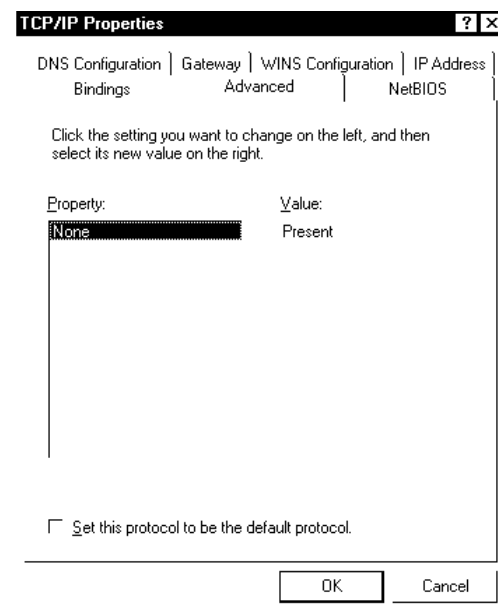
Domain Suffix Search Order

OK Cancel

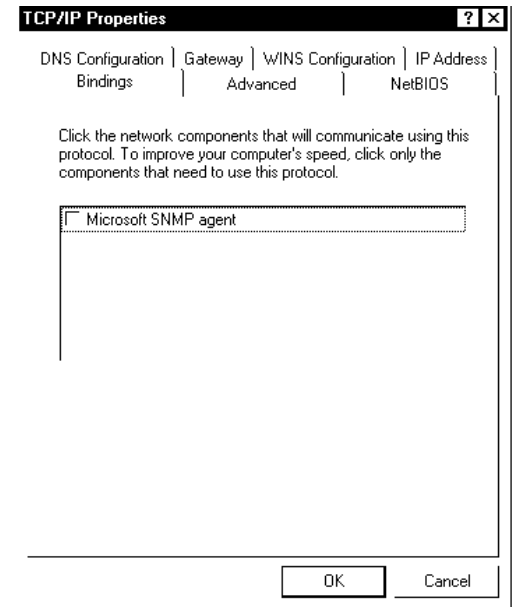
“I want to enable NetBIOS over TCP/IP” ----- ☐



“Set this protocol to be the default protocol” --- ☐



(7) “Binding”

“Microsoft SNMP agent” ----- ☐

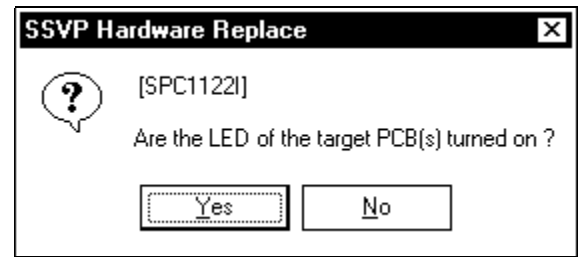
[7] SSVP/HUB

1.

The message “Are the LED of the target PCB(s) turned on?” is displayed.

If you select (CL) [Yes], go to [9] ([REP02-500](#)).

If you select (CL) [No], go to step 2.



2.

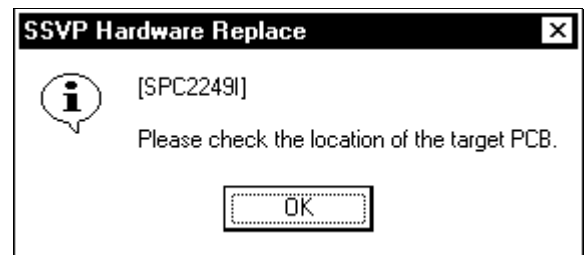
The message shown on the right is displayed.

Check the location of the SSVP/HUB.

(see HARDWARE T8 ([REP03-490](#)))

Select (CL) [OK].

Go to [9] ([REP02-500](#))



[8] FLASH CARD

NOTICE

When the “Explorer” windows are executing, close them before replacement procedure.

1. <Select the type of maintenance part>

Select (CL) the FLASH CARD type of maintenance part in response to “The current FLASH CARD type

Installed : xxxx

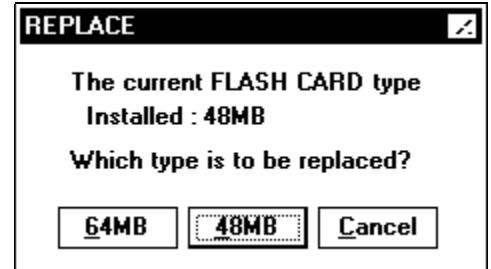
Which type is to be replaced?”.

xxxx : The installed FLASH CARD type

48MB : 48MB type

64MB : 64MB type

UNKNOWN : The FLASH CARD type cannot be gotten.



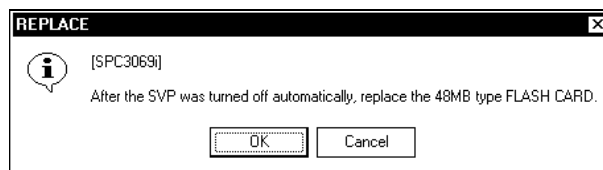
(ex. 48MB type is installed)

2. <Check beginning of FLASH CARD Replacement>

The message “After the SVP was turned off automatically, replace the xx type FLASH CARD.” is displayed.

xx type : The FLASH CARD type selected in step 1.

Select (CL) [OK], so it will reboot the SVP, and the files on FLASH CARD are moved to HD. Then SVP is turned off automatically. (See HARDWARE T7 ([REP03-440](#)))

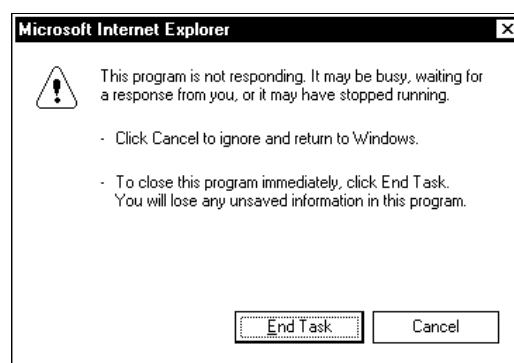
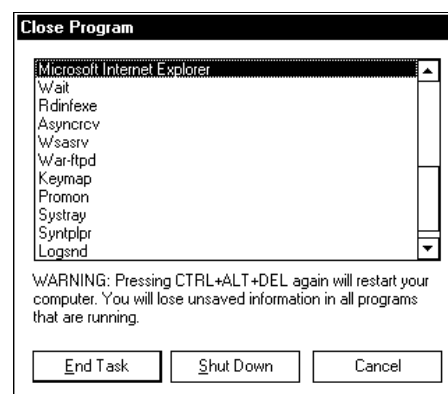
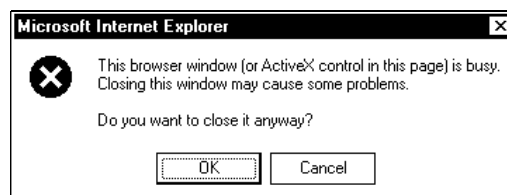


(ex. 48MB type is selected)

NOTICE

When the window shown on the right is displayed after moving files from FLASH CARD to HD, turn off the SVP by following procedure.

- (1) Press [Ctrl], [Alt] and [Delete] keys simultaneously.
- (2) Select (CL) [Microsoft Internet Explorer] from “Close Program” and select (CL) [End Task].
- (3) Select (CL) [End Task] from “Microsoft Internet Explorer”.

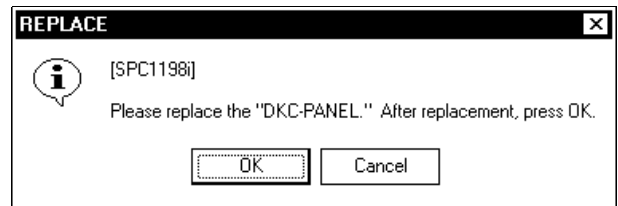


[End of PRE-PROCEDURE]

[9] Check beginning of replacement 1

1. <Check beginning of special part Replacement>

"Please replace the "XXXXXX." After replacement, press OK." is displayed.
(Reply with [OK] after replacing the special part.)



(ex. DKC-PANEL)

2. <Replace special part>

Replace the special part.

DKC-PANEL -----see HARDWARE T1 ([REP03-190](#))
 EPO SW -----see HARDWARE T2 ([REP03-240](#))
 PCI CON-----see HARDWARE T4 ([REP03-320](#))
 RS CON-----see HARDWARE T19 ([REP03-1050](#))
 DKCMN 1/2-----see HARDWARE T3 ([REP03-290](#))
 SSVP/HUB -----see HARDWARE T8 ([REP03-490](#))

[End of PRE-PROCEDURE]

[PRE-PROCEDURE T3]

— OUTLINE —

- ① Select special (DKC) part (status check).
- ② Specify Replacement.
- ③ Detach parts related to special part.
- ④ Place parts related to special part into unpluggable state.

[1] Select special part

1. <Maintenance window>

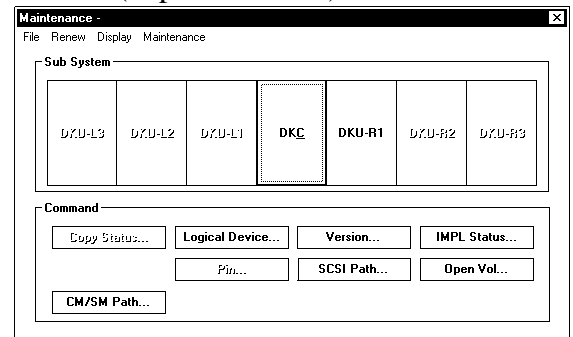
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKC] to be replaced.

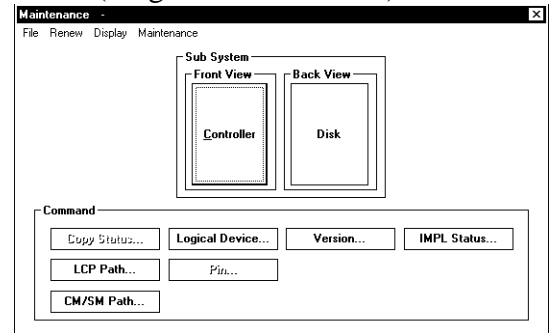
(Single Cabinet Model)

In the 'Maintenance' window, check and select (CL) [Controller] to be replaced.

(Separate Model)



(Single Cabinet Model)



2. <DKC window>

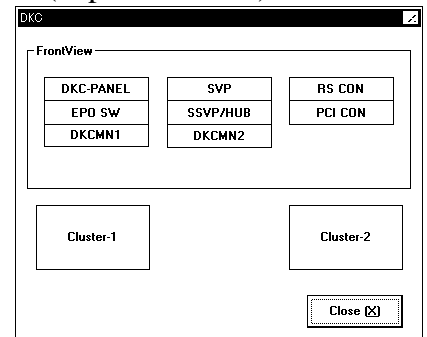
(Separate Model)

Select (CL) [Cluster-n] in the 'DKC'.

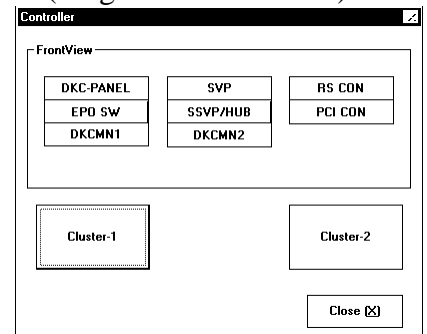
(Single Cabinet Model)

Select (CL) [Cluster-n] in the 'Controller'.

(Separate Model)



(Single Cabinet Model)

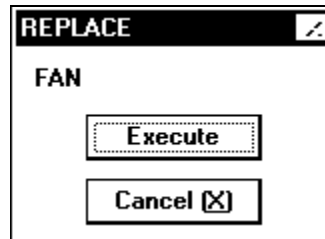


3. <Select special part>

Select (CL) part [XXXX] to be replaced from [Cluster-n] window and select (CL) [Execute].

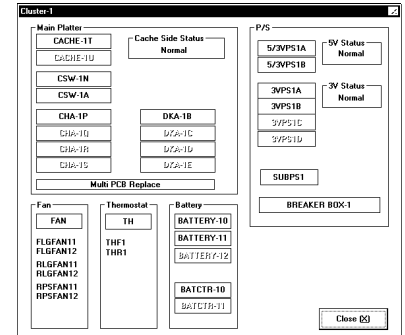
Valid [XXXX] values are listed below.

- Fan assembly [FAN]
- PS [5/3VPSn], [3VPSn], [SUBPS]
- Battery, BAT CTR [BATTERY-mm, BAT CTR-mm]
- Breaker Box [BREAKER BOX-n]
- Thermostat assembly .. [TH]
- AC BOX(DKC) [AC BOX-Cn]

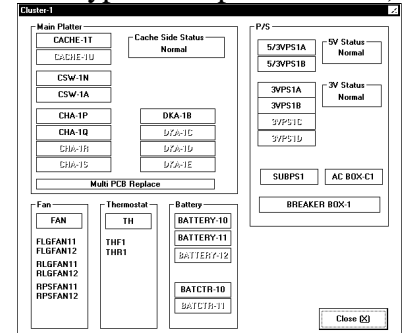


(ex. Fan assembly)

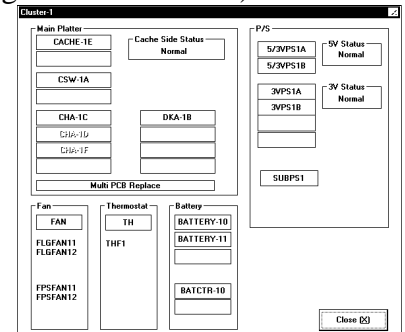
(3-Phase Type for Separate Model)



(1-Phase Type for Separate Model)



(Single Cabinet Model)

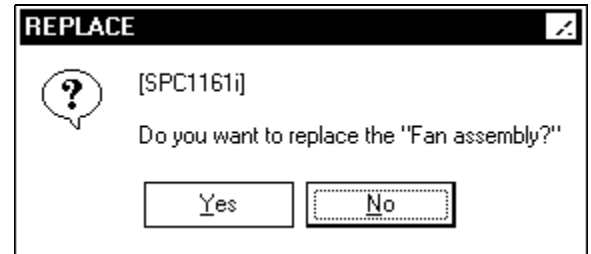


(ex. Cluster-1)

4. <Check beginning of special part Replacement>

Select (CL) [Yes] in response to "Do you want to replace the "XXXXX?".".

XXXXX represents one of the part names listed in step 3.

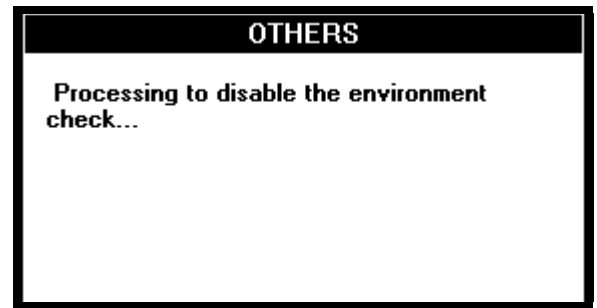


(ex. Fan assembly)

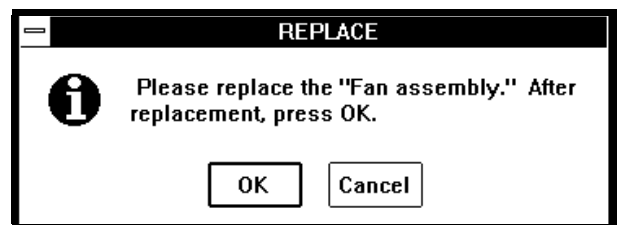
- "Fan assembly"----- Go to [2] ([REP02-540](#))
- "5/3V PSn" ----- Go to [3] ([REP02-550](#))
- "3V PSn"----- Go to [3] ([REP02-550](#))
- "BATTERY-n"----- Go to [4] ([REP02-570](#))
- "BAT CTR-n"----- Go to [4] ([REP02-570](#))
- "Thermostat assembly" -- Go to [2] ([REP02-540](#))
- "SUBPSn" ----- Go to [3] ([REP02-550](#))
- "BREAKER BOX-n" ---- Go to [5] ([REP02-580](#))
- "AC BOX-Cn" ----- Go to [5] ([REP02-580](#))

[2] Fan assembly, Thermostat assembly

1. <Check environment monitor stopped state>
 “Processing to disable the environment check...”
 is displayed.



-
2. <Special part Replacement>
 “Please replace the "XXXXXX." After replacement, press OK.” is displayed.
 (Reply with [OK] after replacing the special part.)
 Go to [6] ([REP02-590](#)).



(ex. Fan assembly)

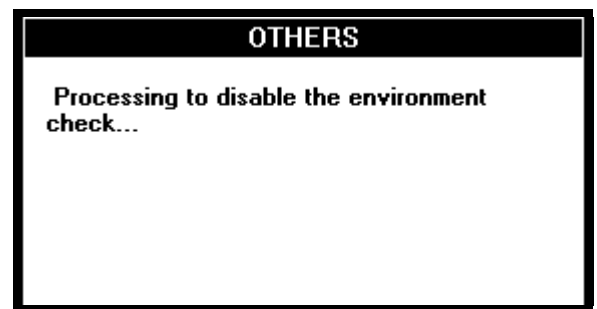
[3] 5/3V PS, 3V PS, SUBPS

1. <Check matching power supply>

The SVP automatically checks the power supply to see if it is replaceable.

2. <Environment monitor state>

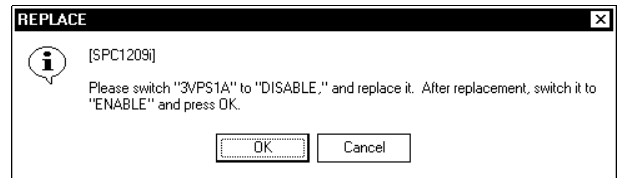
“Processing to disable the environment check...”
is displayed.



3. <Special part replacement>

The message shown on the right is displayed.
(Reply with [OK] after replacing the special part.)

Go to [6] ([REP02-590](#)).



(ex. 3VPS1A)

[4] BATTERY/BATCTR

1. <Check source power>

The SVP automatically checks the 5/3V power supply to determine whether it is not shut down.

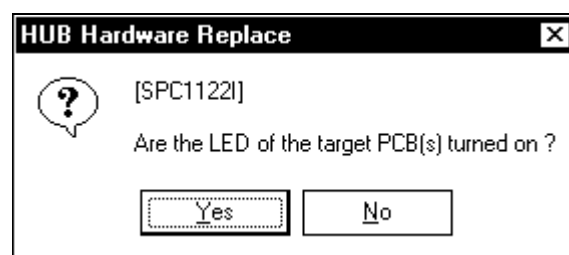
If you replace the BATTERY-xx : Go to 4

2.

The message “Are the LED of the target PCB(s) turned on?” is displayed.

If you select (CL) [Yes], go to step 4.

If you select (CL) [No], go to step 3.



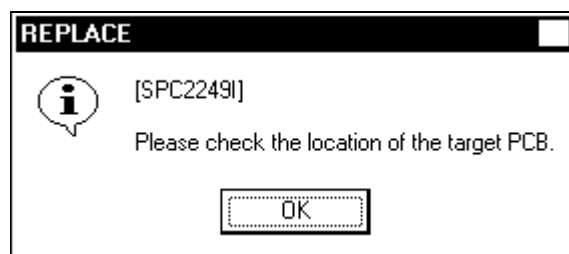
3.

The message shown on the right is displayed.

Check the location of the BATCTR.

(see HARDWARE T12 ([REP03-640](#)))

Select (CL) [OK].

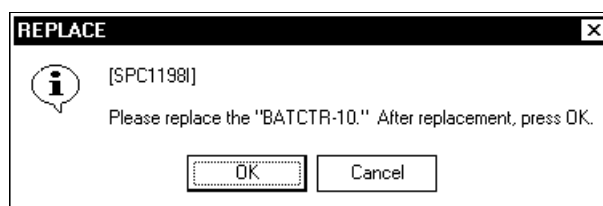


4. <Check beginning of special part Replacement>

“Please replace the "XXXXXX." After replacement, press OK.” is displayed.

(Reply with [OK] after replacing the special part.)

Go to [6] ([REP02-590](#)).



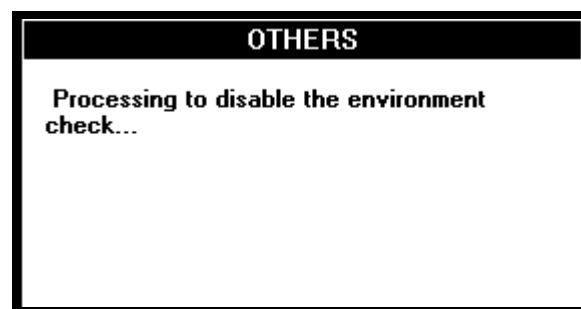
(ex. BACTR-10)

[5] BREAKER BOX, AC BOX(DKC)

1. <Check matching power supply>

The SVP automatically checks the power supplies to see if the part is replaceable.

2. <Check environment monitor stopped state>
 “Processing to disable the environment check...”
 is displayed.

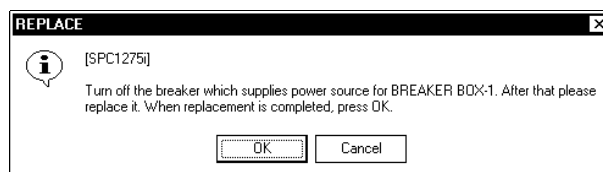


3. In the case of Breaker Box replacement with 1-Phase Power Supply option, SVP displays “Installed AC BOX is 1-Phase type. Turn off the DKC AC BOX which supplies power source for XXXXX, when you replace it.” Message. Select (CL) [OK].
 In the other case, Go to [4].



(ex. BREAKER BOX-2)

4. The message shown on the right is displayed.
 (Reply with [OK] after replacing the special part.)
 Go to [6] ([REP02-590](#)).



(ex. BREAKER BOX-1)

[6] Replacement

1. <Replace special part>
Replace the special part.

Fan assembly(DKC, Controller) ---- see HARDWARE T5 ([REP03-370](#))
Thermostat assembly----- see HARDWARE T6 ([REP03-390](#))
BREAKER BOX-1----- see HARDWARE T9 ([REP03-510](#))
BREAKER BOX-2----- see HARDWARE T10 ([REP03-560](#))
BATTERY ----- see HARDWARE T11 ([REP03-610](#))
BAT CTR----- see HARDWARE T12 ([REP03-640](#))
PS(5/3VPS, 3VPS)----- see HARDWARE T13 ([REP03-670](#))
AC BOX(DKC)----- see HARDWARE T21 ([REP03-1100](#))

[End of PRE-PROCEDURE]

[PRE-PROCEDURE T4]

— OUTLINE —

- ① Select special (DKU) part (status check).
- ② Specify Replacement.
- ③ Detach parts related to special part.
- ④ Place part into unpluggable state.

[1] Select special part

1. <Select DKU-X>

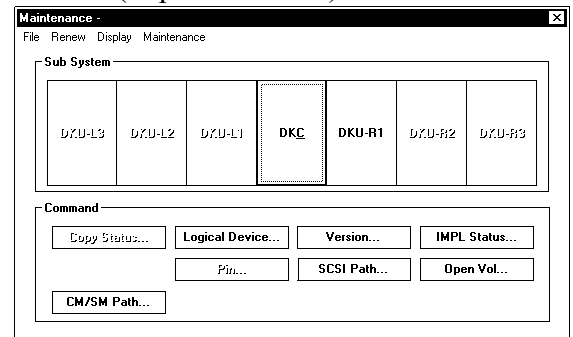
(Separate Model)

Select (CL) [DKU] from 'Maintenance'.

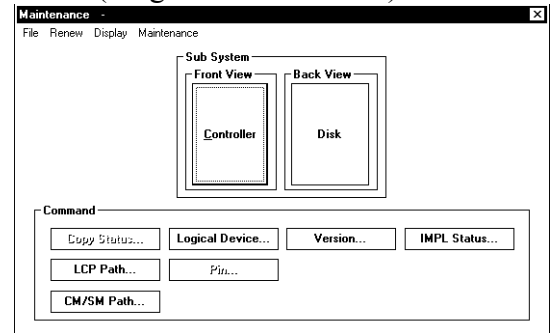
(Single Cabinet Model)

Select (CL) [Disk] from 'Maintenance'.

(Separate Model)



(Single Cabinet Model)



2. <Specify special part>

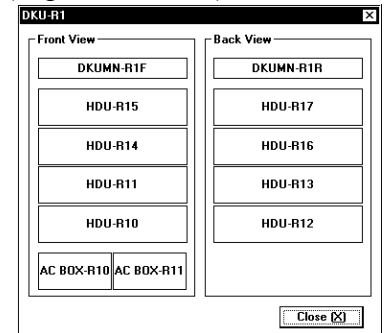
Select part [XXXXXX] to be Replaced.

- DKUMN ----- [DKUMN-X]
 - AC BOX (3 Phase type for Separate Model),
 - AC BOX (1 Phase Type for Separate Model),
 - AC BOX (Single Cabinet Model)----- [AC BOX-X]
- Go to step 4.

- Fan assembly
- PS (DKU, Disk)

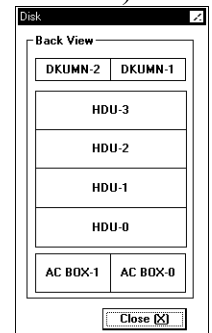
Select (CL) [HDU-X]. Go to step 3.

(Separate Model)



(ex. DKU-R1)

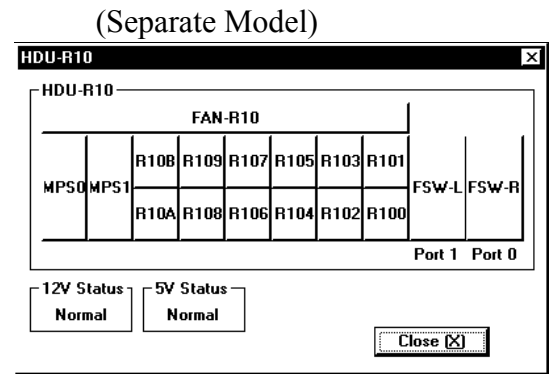
(Single Cabinet Model)



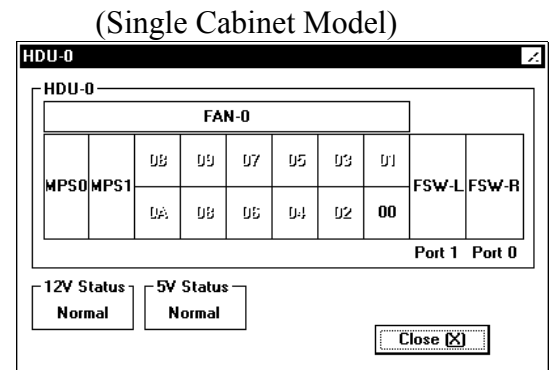
3. <Specify special part>

Select (CL) [HDU-X] containing part to be replaced.

- Fan assembly -----[FAN-X]
- PS (DKU, Disk)-----[MPS-n]



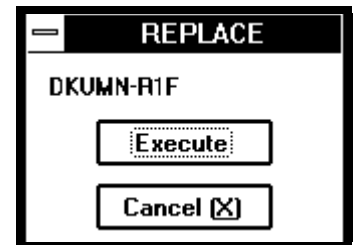
(ex. HDU-R11)



(ex. HDU-0)

4. <Specify special part Replacement>

Select (CL) [Execute].



(ex. DKUMN-R1F of Separate Model)

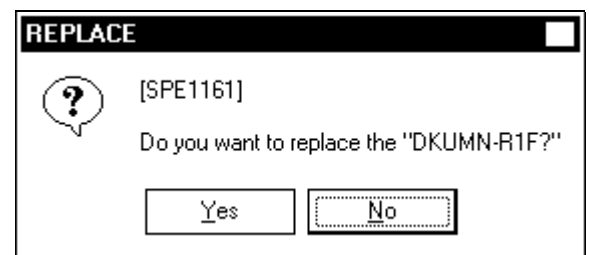
5. <Special part Replacement>

Select (CL) [Yes] in response to "Do you want to replace the "XXXXXX?"".

XXXXXX represents one of the part names listed in step 2 or 3.

Valid [XXXXXX] values are listed below.

- 'DKUMN-X' -----Go to [2] ([REP02-630](#))
- 'MPS-X' -----Go to [3] ([REP02-640](#))
- 'Fan assembly' -----Go to [4] ([REP02-650](#))
- 'AC BOX-X' -----Go to [5] ([REP02-660](#))



(ex. DKUMN-R1F of Separate Model)

[2] DKUMN PCB

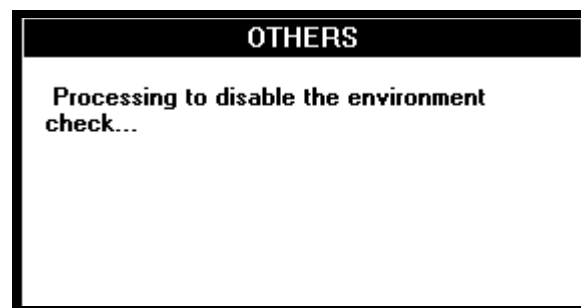
1. <Environment monitor state>
 “Processing to disable the environment check...”
 is displayed.

(Separate Model)

- DKUMN-R3n, DKUMN-L3n ----- Go to 3

(Single Cabinet Model)

Go to 3.



2. <Disable DKUMN>

When Separate Model, if DKUMN-XXX (listed below) is installed, this message is displayed.

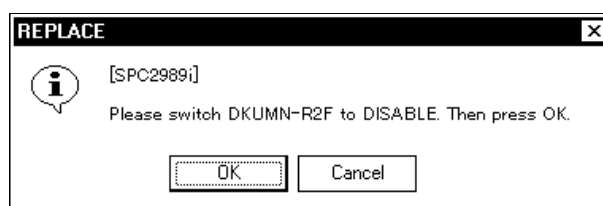
Disable the DKUMN in response to “Please switch "DKUMN-X" to "DISABLE".

Then press OK.” (see HARDWARE T14 (REP03-700)).

After confirming that the DKUMN-X has been disabled, select (CL) [OK].

DKUMN-X (Separate Model):

Replace parts	X
DKUMN-R1F	R2F, R3F
DKUMN-R1R	R2R, R3R
DKUMN-R2F	R3F
DKUMN-R2R	R3R
DKUMN-L1F	L2F, L3F
DKUMN-L1R	L2R, L3R
DKUMN-L2F	L3F
DKUMN-L2R	L3R

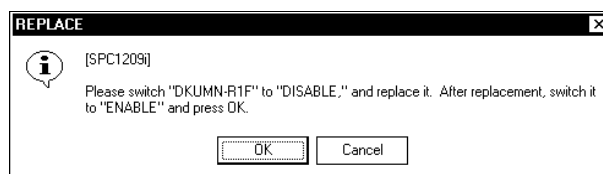


(ex. Replacement of the DKUMN-R1F)

3. <Special part Replacement>

“Please switch "DKUMN-X" to "DISABLE," and replace it. After replacement, switch it to "ENABLE" and press OK.” is displayed.
 (Reply with [OK] after replacing the special part.)

Go to [6] (REP02-670).



(ex. DKUMN-R1F of Separate Model)

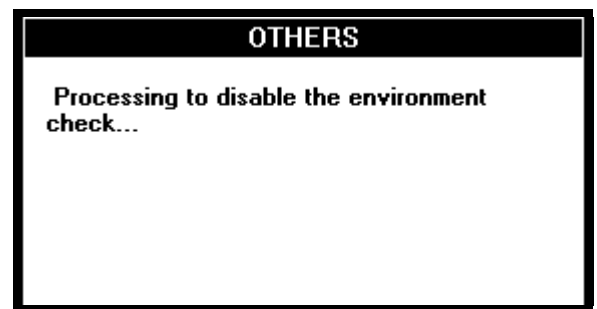
[3] MPS (DKU, Disk)

1. <Check matching power supply>

The SVP automatically checks that the mate power supply is normal.

2. <Environment monitor state>

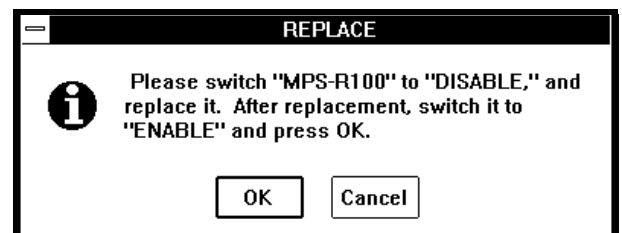
“Processing to disable the environment check...” is displayed.



3. <Special part replacement>

The message shown on the right is displayed.
(Reply with [OK] after replacing the special part.)

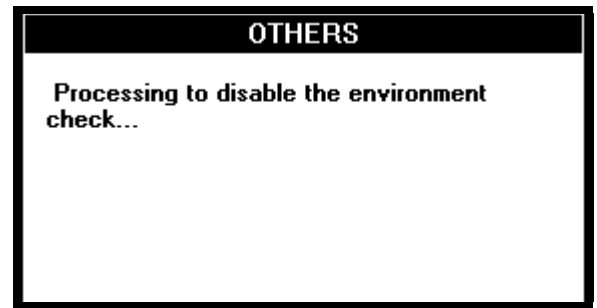
Go to [6] ([REP02-670](#)).



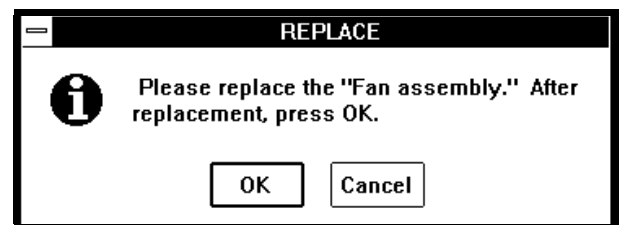
(ex. MPS-R100 of Separate Model)

[4] Fan assembly

1. <Environment monitor state>
“Processing to disable the environment check...”
is displayed.



-
2. <Special part Replacement>
“Please replace the "Fan assembly." After replacement, press OK.” is displayed.
(Reply with [OK] after replacing the special part.)
Go to [6] ([REP02-670](#)).



[5] AC BOX (3 Phase Type for Separate Model), AC BOX (1 Phase Type for Separate Model), AC BOX (Single Cabinet Model)

1.

(Separate Model)

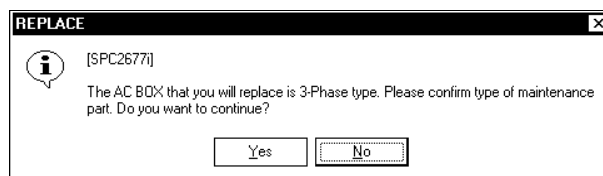
“The AC BOX that you will replace is XXXX. Please confirm type of maintenance part. Do you want to continue?” is displayed. Confirm the maintenance part “XXXX” with Power Supply option, and select (CL) [Yes].

XXXX : 3-Phase type

1-Phase type

(Single Cabinet Model)

Go to 2.

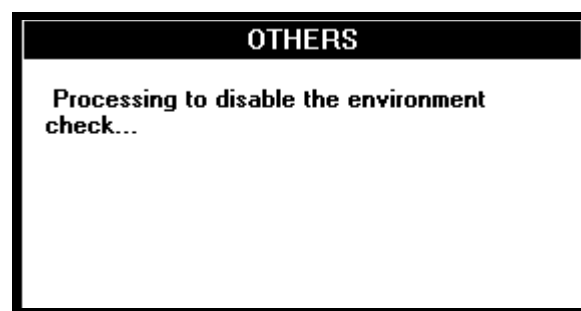


2.

The SVP automatically checks the power supplies to see if AC BOX is replaceable.

3. <Check environment monitor stopped state>

“Processing to disable the environment check...” is displayed.

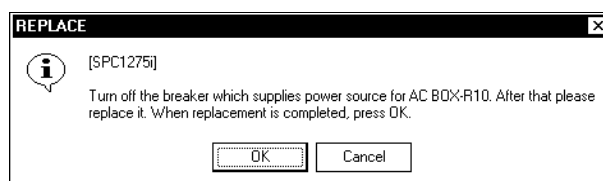


4.

“Turn off the breaker which supplies power source for AC-BOX-X. After that please replace it. When replacement is completed, press OK.” is displayed.

(Reply with [OK] after replacing the special part.)

Go to [6] ([REP02-670](#)).



(ex. AC BOX-R10 of Separate Model)

[6] Replacement

1. <Replace special part>
Replace the special part .

DKUMN ----- see HARDWARE T14 ([REP03-700](#))
 PS(DKU, Disk) ----- see HARDWARE T15 ([REP03-730](#))
 Fan assembly(DKU, Disk) ----- see HARDWARE T16 ([REP03-760](#))
 AC BOX-R10(3 Phase Type for Separate Model)
 ----- see HARDWARE T17 ([REP03-790](#))
 AC BOX(except AC BOX-R10 of 3 Phase Type for Separate Model)
 ----- see HARDWARE T18 ([REP03-890](#))
 AC BOX(1 Phase Type for Separate Model)---- see HARDWARE T22 ([REP03-1250](#))
 AC BOX(Single Cabinet Model)----- see HARDWARE Tx ([REP03-xxx](#))

[End of PRE-PROCEDURE]

[PRE-PROCEDURE V]

— OUTLINE —

- ① Select P-DEV (status check).
- ② Specify Replacement.
- ③ Place HDD into unpluggable state.

NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

1. <Maintenance window>

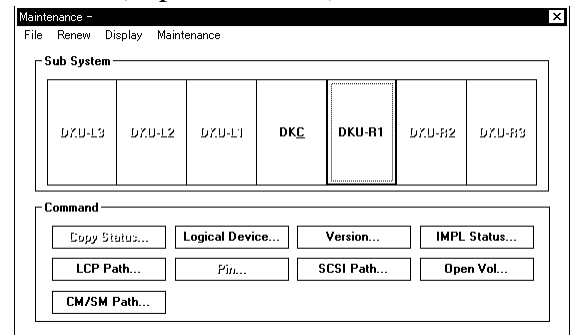
(Separate Model)

In the 'Maintenance' window, check and select (CL) [DKU-Rn] or [DKU-Ln] to be replaced.

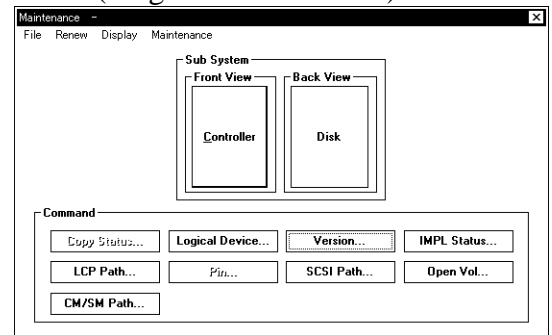
(Single Cabinet Model)

In the 'Maintenance' window, select (CL) [Disk].

(Separate Model)



(Single Cabinet Model)



2. <Select HDU-BOX>

(Separate Model)

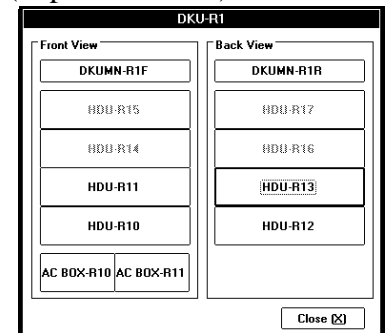
Check and select (CL) [HDU-Rnn] or [HDU-Lnn] to be replaced.

(Single Cabinet Model)

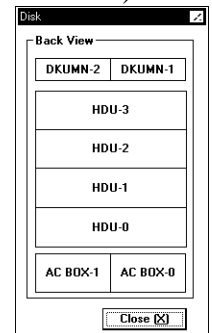
Check and select (CL) [HDU-n] to be replaced.

Selecting (CL) [Close] returns you to step 1.

(Separate Model)



(Single Cabinet Model)



NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

3. <Select HDD>

(Separate Model)

Check and select (CL) [Rnnn] or [Lnnn] to be replaced.

(Single Cabinet Model)

Check and select [nn] to be replaced.

Selecting (CL) [Close] returns you to step 2.

(Separate Model)

HDU-R10

FAN-R10															
MPS0	MPS1	R10B	R109	R107	R105	R103	R101	R10A	R108	R106	R104	R102	R100	FSW-L	FSW-R
														Port 1	Port 0

12V Status: Normal 5V Status: Normal

Close

(Single Cabinet Model)

HDU-1

FAN-1															
MPS0	MPS1	1B	19	17	15	13	11	1A	18	16	14	12	10	FSW-L	FSW-R
														Port 1	Port 0

12V Status: Normal 5V Status: Normal

Close

4. <Specify replacement on HDD>

Check status display.

◆ In the case of a warning SIM, “NORMAL” is displayed.

◆ In the case of a blocking SIM, “FAILED” is displayed.

Select (CL) [Replace (INLINE)].

HDD-R100

Device Type: DK318-ST

Group: Group 1-1 (RAID1)

Device Status: Normal

Port Status: Normal

Close

Replace
Replace(INLINE)
Restore
Blockade
Secure Disk
Restore Data
Correction Copy
Drive Interrupt
LDEV Detail
Renewal

5. <Checking the P-DEV status & saving the spare>

“Checking...” is displayed.

NOTICE

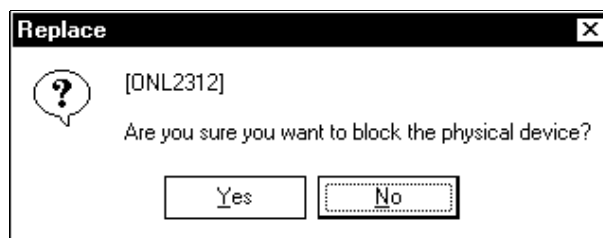
When the screen appears prompting the operator to input a password to prevent a multiple maintenance or for executing a pin check, contact the technical support center to ask for an instructions.

NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

6. <P-DEV blocking>

Select (CL) [Yes] in response to “Are you sure you want to block the physical device?”.



7. <Blocking the Physical device>

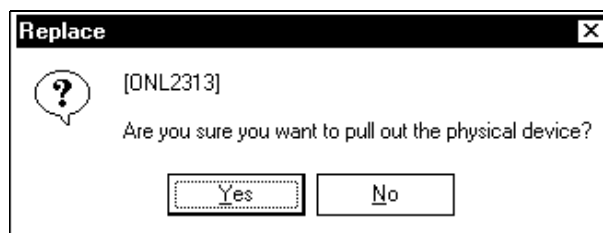
“Blocking...” is displayed.

8. <Spin down the Physical device>

“Spinning down...” is displayed

9. <P-DEV pull out>

Select (CL) [Yes] in response to “Are you sure you want to pull out the physical device?”.



NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

10. <Check shut down LED>

Check the shut down LED on the HDD to be replaced.

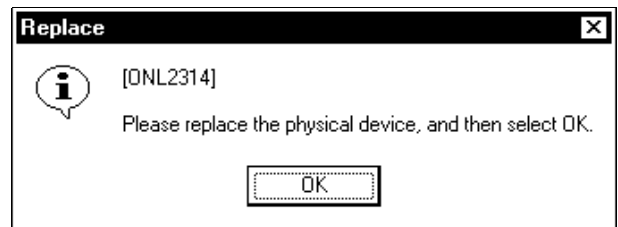
If LED is off, reconfirm the location of the HDD to be replaced with LOCATION SECTION before hardware work.

NOTICE

If a wrong HDD is removed, a data loss or a system down may be caused.

11. <Confirmation of replace>

Select (CL) [OK] in response to “Please replace the physical device, and then select OK.” after replace the unit (Step 12).

**12. <Replace HDD>**

Replace HDD.

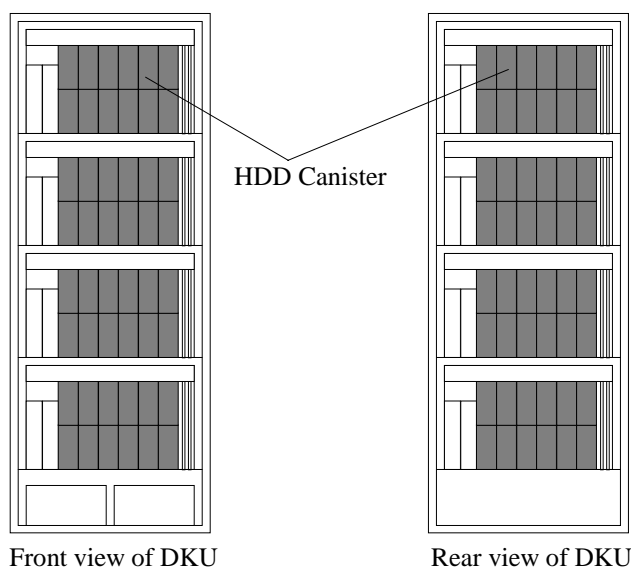
See HARDWARE A ([REP03-10](#)).

[HARDWARE A]

Location	Function Name of Component		Part Name	HDA Label
HDU Box in DKU	1	HDD Canister	HDU-18J1FC	DKR2B-J18FC
				DKR2C-J18FC
				DKR2D-J18FC
				DKR2D-J18FD
			HDU-47J1FC	DKR1B-J47FC
				DKR1C-J47FC
			HDU-72J1FC	DKR1C-J72FC
				DKR2D-J72FC
			HDU-18K1FC	DKS2A-K18FC
			HDU-180H1FC	DKS1A-H180FC
			HDU-36K1FC	DKS2B-K36FC

NOTICE:

Replace the HDD canister in the subsystem power on status only.
Do not replace with the subsystem power off status.


NOTICE:

- (1) Be sure to wear your wrist strap and attach to ground prior to performing the following work.
This will ensure that the IC and LSI on the PCB are protected from static electricity.
- (2) HDD is a precise component. Be careful in handling HDD to avoid vibration and impact.

1. The following figure shows the correct way to replace the HDD canister.

a. Check Shut Down LED ① on the HDD canister.

! CAUTION

A system down may be caused by a replacement of an HDD canister other than that to be replaced. Make sure that it is the HDD canister to be replaced.

b. Remove the HDD Box Cover (acrylic cover).

Process 1 : Disengage two claws at the bottom of the acrylic cover.

Process 2 : Slide the acrylic cover upward and remove it from the screws on the HDD Box.

c. After pushing up the stopper on the front side of the HDD canister, pull the lever toward you to remove the HDD canister.

d. Install a spare HDD canister. (For the detailed procedure for installation, refer to the procedure for installing HDD canister on page [REP03-25](#).)

e. Attach the HDD Box Cover.

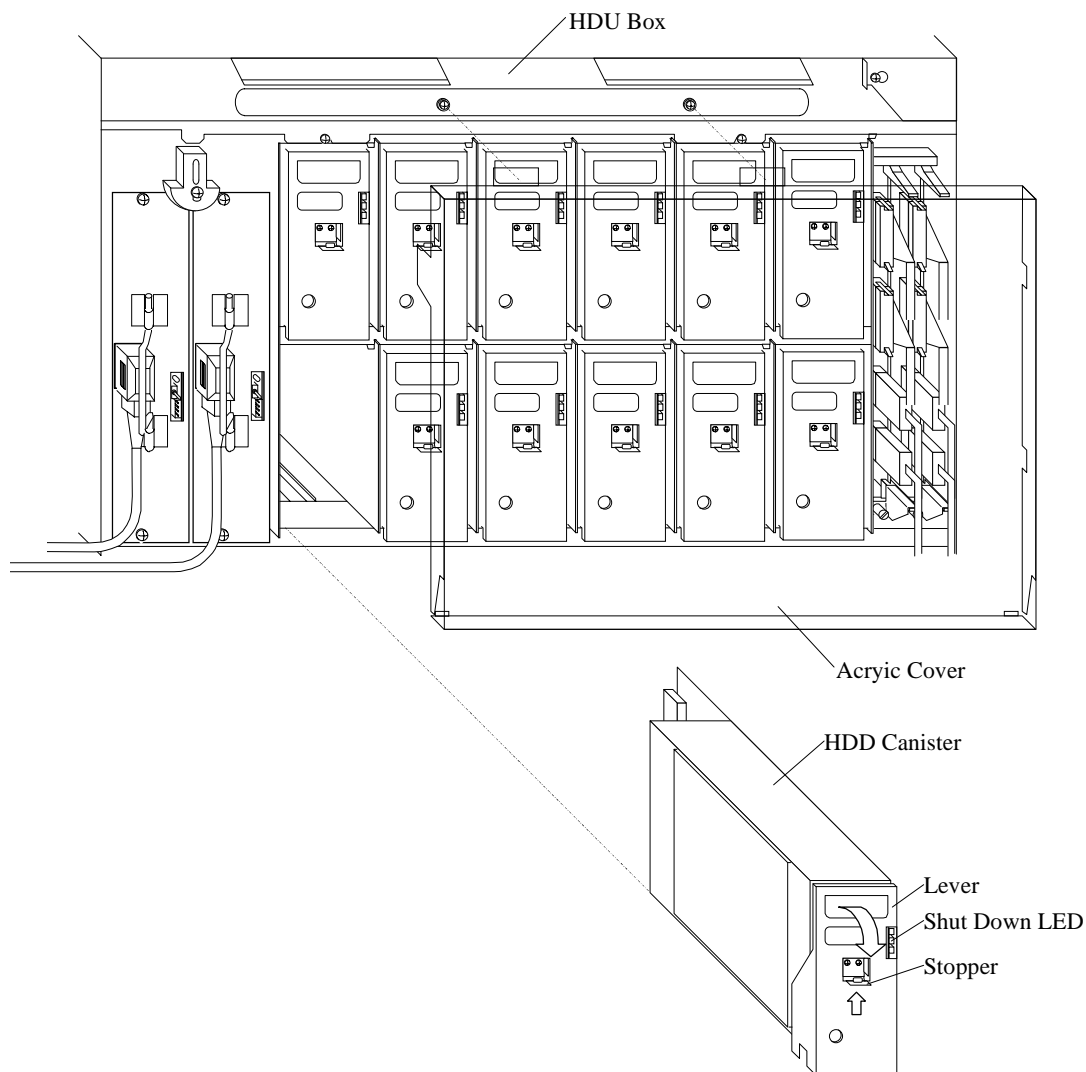


Fig. A-1 Replace HDD

HDD canister install procedure

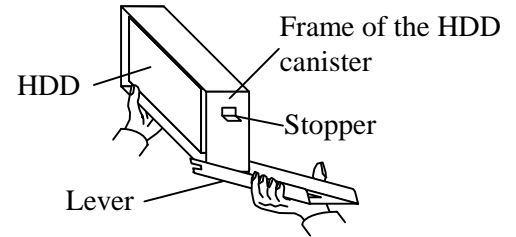
Note on the installation: Do not insert the HDD canister by pushing its frame.

- (1) Insert the HDD canister into the HDU Box holding its lever.

(Insert the canister until the claws that are located at the bottom of the lever come in contact with the front side of the HDU Box.)

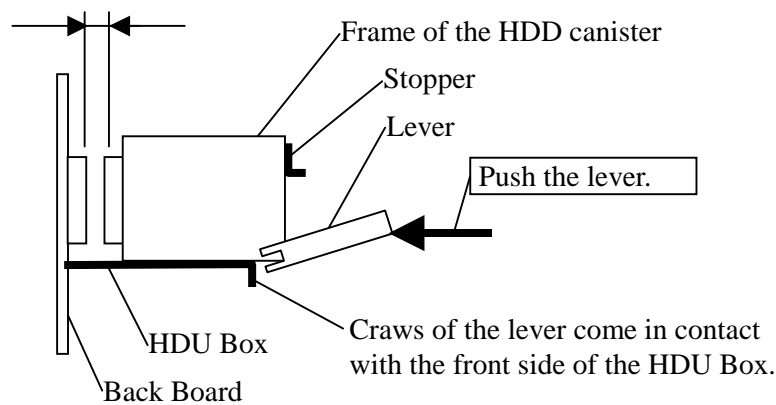
- (2) Turn the lever at a stroke by pushing its top with your thumb.
(Turn the lever until it latches with the stopper. Do not stop the lever on its way of turning.)

Handling of the canister



- (1) Insert the HDD canister into the HDU Box holding its lever.

A gap exists between the connectors.



- (2) Turn the lever at a stroke by pushing its top with your thumb.
(Do not stop the lever on its way of turning.)

The connectors have been coupled.

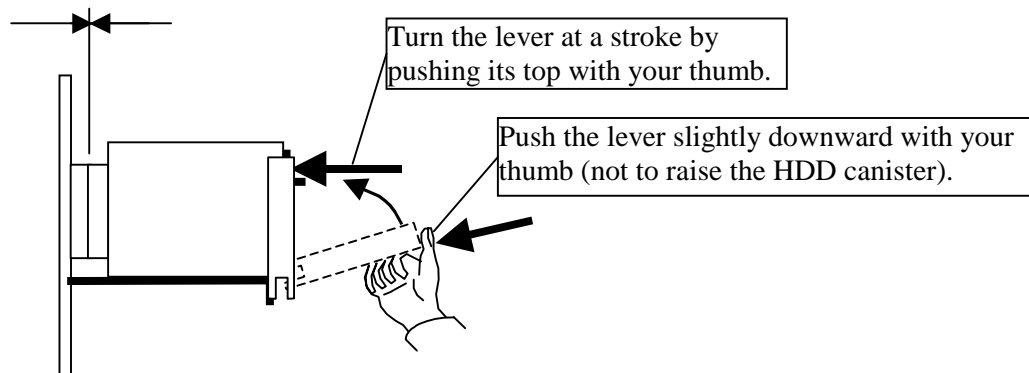


Fig. A-2 Method of Installing HDD Canister

2. See SVP post-procedure as follows.

Before starting the <Check the beginning of recovery> operation in POST-PROCEDURES a, b, c and d, be sure to insert a floppy disk for dump, collect failure information, and return the floppy disk with the failed HDD.

A dump floppy disk is attached with a Spare HDD.

<Data drive, spare drive>

Work ID	Part name	Condition Item				Procedure *1
		Condition			Configuration	SVP post procedure
		Failure		Preventive	Unused Spare drive	
		Warning SIM	Block SIM			
RDK1	Data Drive Note 1	×	-	-	Yes	Post a *1
RDK2	Data Drive Note 1	-	×	-	Yes	Post a *1
RDK3	Data Drive Note 1	-	-	×	Yes	Post a *1
RDK4	Data Drive Note 1	×	-	-	No	Post b *1
RDK5	Data Drive Note 1	-	×	-	No	Post b *1
RDK6	Data Drive Note 1	-	-	×	No	Post b *1
RDK7 Note 2 Note 3	Data Drive Note 1	Note 2				Post c *1
RDK8	Spare Drive Note 1	-				Post d *1

*1: Refer to [REP01-190](#)

Note 1) Parts Name is indicates attribute of a drive.

Data Drive : The drive is installed in the position for a drive except spare drive (Data Drive).

Spare Drive : The drive is installed in the position for a spare drive.

Note 2) RDK7 is a Work ID for a work which is applicable to a case that two or more drives in a same parity group are blocked.

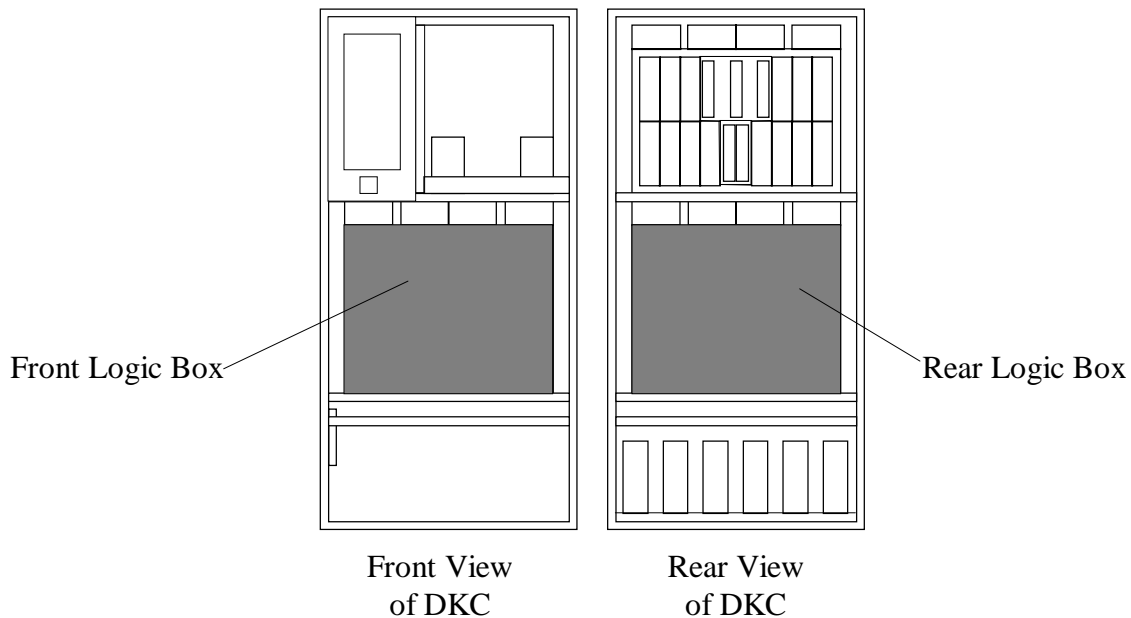
When the procedures instructed by RDK7 are executed, data will be lost. Ask the technical support center about the appropriateness of the operation.

Note 3) Confirm the parity group and the LDEV No. corresponding to the HDD through the SVP STATUS. See page [SVP03-100](#) for the procedure for referring to SVP STATUS.

Note : If a Work ID cannot be found or if multiple drive error is occurring, see page [TRBL05-170](#) on TROUBLE SHOOTING section.

[HARDWARE B]

Location	Function Name of Component		Part Name
Front Logic Box or Rear Logic Box in DKC	1	Cache Memory PCB	<ul style="list-style-type: none"> • WP440-A • WP440-B
	2	Cache Memory Module on Cache Memory PCB	<ul style="list-style-type: none"> • SH185-A • SH185-B
	3	Shared Memory Module on Cache Memory PCB	<ul style="list-style-type: none"> • SH184-B



NOTICE:

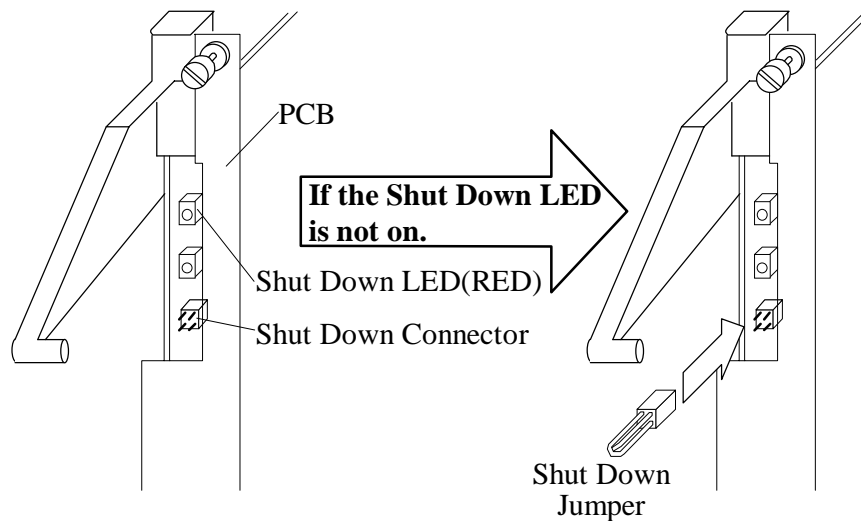
Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

1. Remove the Cache Memory PCB

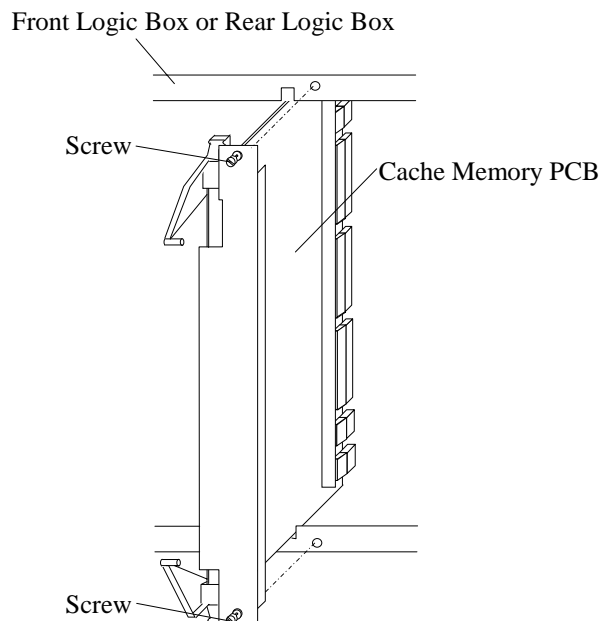
- a. Check that the Shut Down LED is on. If not, connect the Shut Down Jumper to the Shut Down Connector. (only hot replace)

CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.

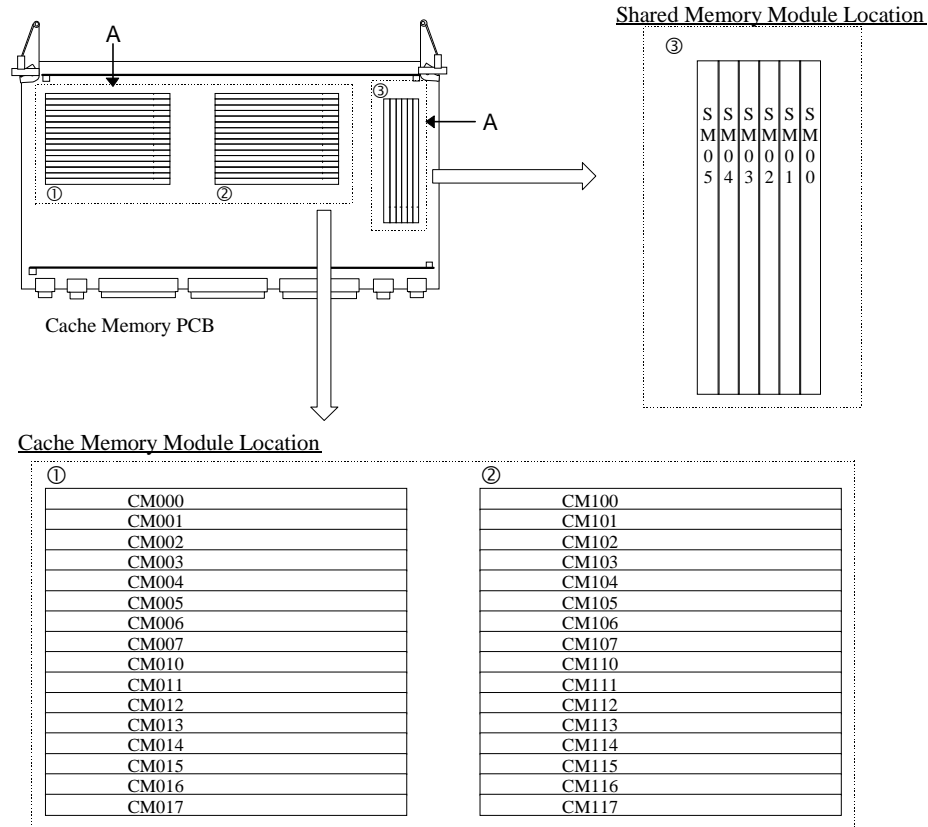


- b. Remove the two screws and remove the Cache Memory PCB.

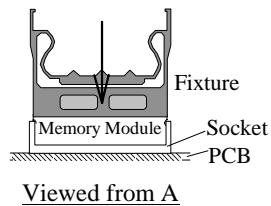


- c. Remove the Shut Down Jumper if it is mounted.

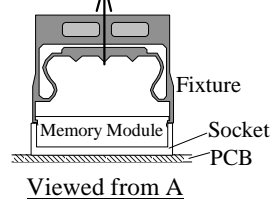
2. Replace the failed part to spare part.
 - a. When replacing the CM PCB, move all the shared memory modules and cache memory modules (including dust covers if any) mounted on an extracted PCB to the same mounting positions on the spare PCB.
 - b. When the failed part is Cache Memory Module, replace the Cache Memory Module.
 - c. When the failed part is Shared Memory Module, replace the Shared Memory Module.



Insertion of Memory Module



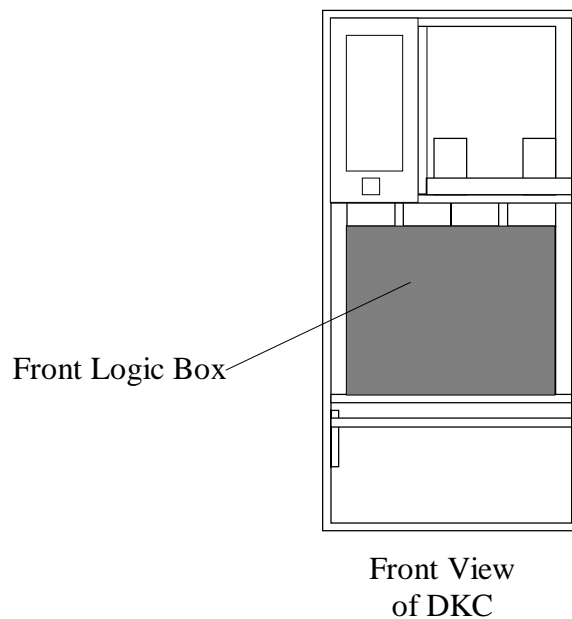
Removal of Memory Module



3. Insert the Cache Memory PCB.
 - a. Insert the Cache Memory PCB and fasten the two screws.
4. Go to SVP post-procedure e [\[REP04-180\]](#).

[HARDWARE C]

Location	Function Name of Component		Part Name
Front Logic Box in DKC	1	CHA (Channel Adapter) PCB for serial channel	<ul style="list-style-type: none">• WP412-B• WP412-A & SH214-A

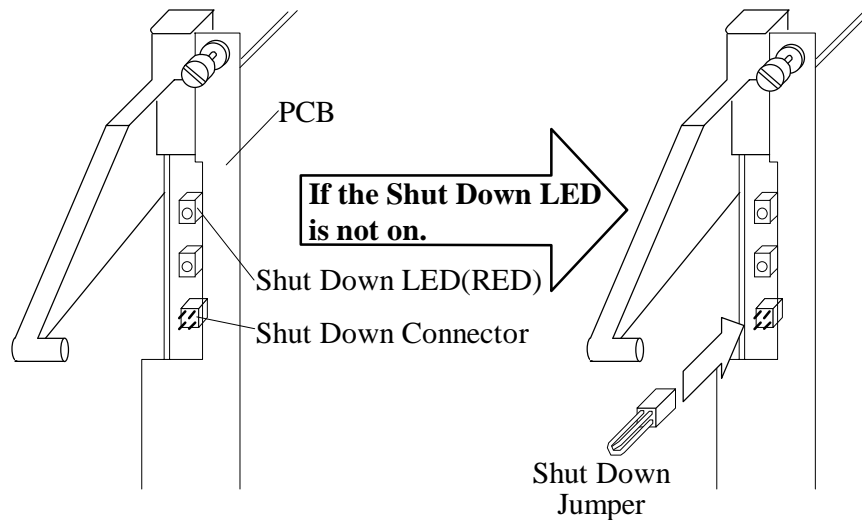
**NOTICE:**

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

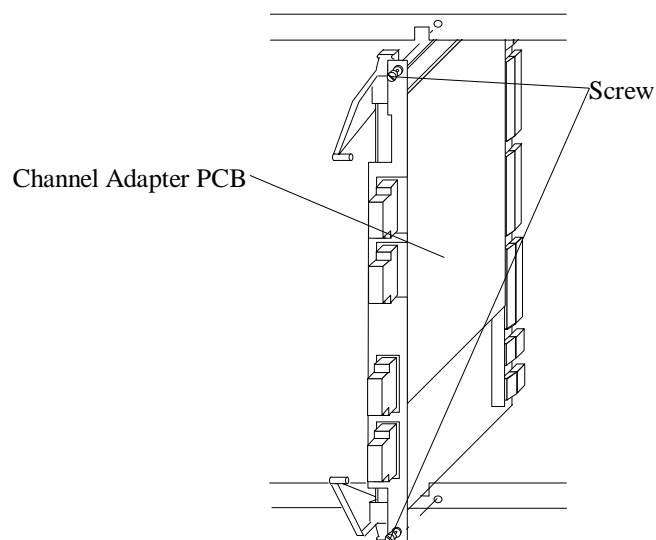
1. Check that the Shut Down LED is on. If not, connect the Shut Down Jumper to the Shut Down Connector. (only hot replace)

CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.



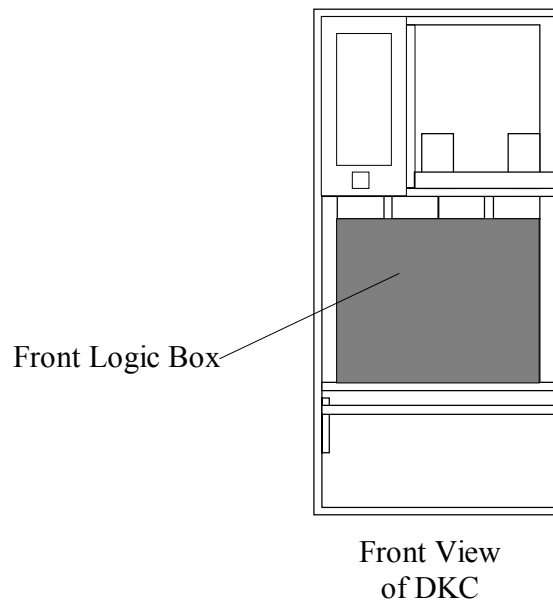
2. Disconnect the optical fiber cables from the failed Channel Adapter PCB.
3. Remove the two screws and remove the failed PCB.
Note: If the Shut Down Jumper is used, remove it.



4. Insert the spare PCB to the correct location and fasten the two screws.
5. Connect the optical fiber cables to the spare PCB.
6. Go to SVP post procedure f [\[REP04-210\]](#).

[HARDWARE D]

Location	Function Name of Component		Part Name
Front Logic Box in DKC	1	Fibre 8-port Adapter PCB for Short Wavelength	• WP411-A & SH212-A
	2	Fibre 4-port Adapter PCB for Short Wavelength	• WP411-A & SH212-B
	3	Fibre 8-port Adapter PCB for Long Wavelength	• WP411-A & SH212-C
	4	Fibre 4-port Adapter PCB for Long Wavelength	• WP411-A & SH212-D
	5	Enhanced Fibre 8-port Adapter PCB for Short Wavelength	• WP411-B & SH212-E
	6	Enhanced Fibre 8-port Adapter PCB for Long Wavelength	• WP411-B & SH212-G
	7	2 Gbps Fibre 8-port Adapter PCB for Short Wavelength	• WP411-C & SH261-A
	8	Mainframe Fibre 4-port Adapter PCB for Short Wavelength	• WP415-A & SH297-A
	9	Mainframe Fibre 4-port Adapter PCB for Long Wavelength	• WP415-B & SH297-A



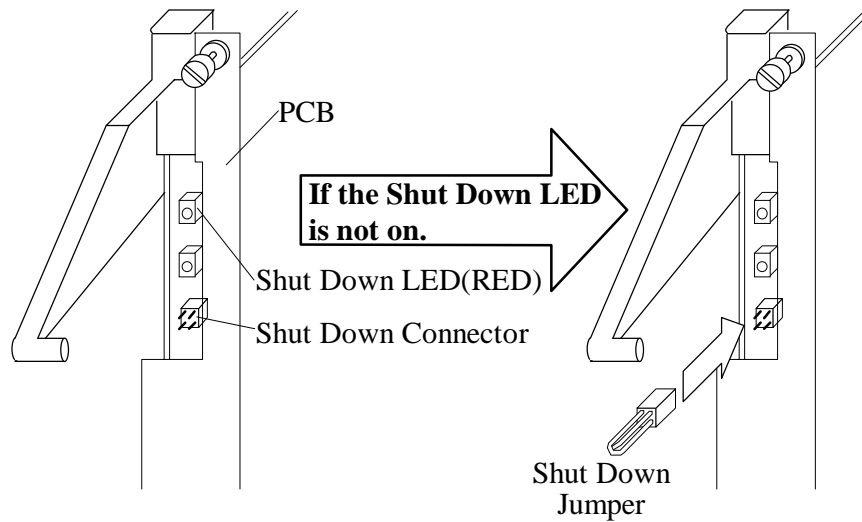
NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

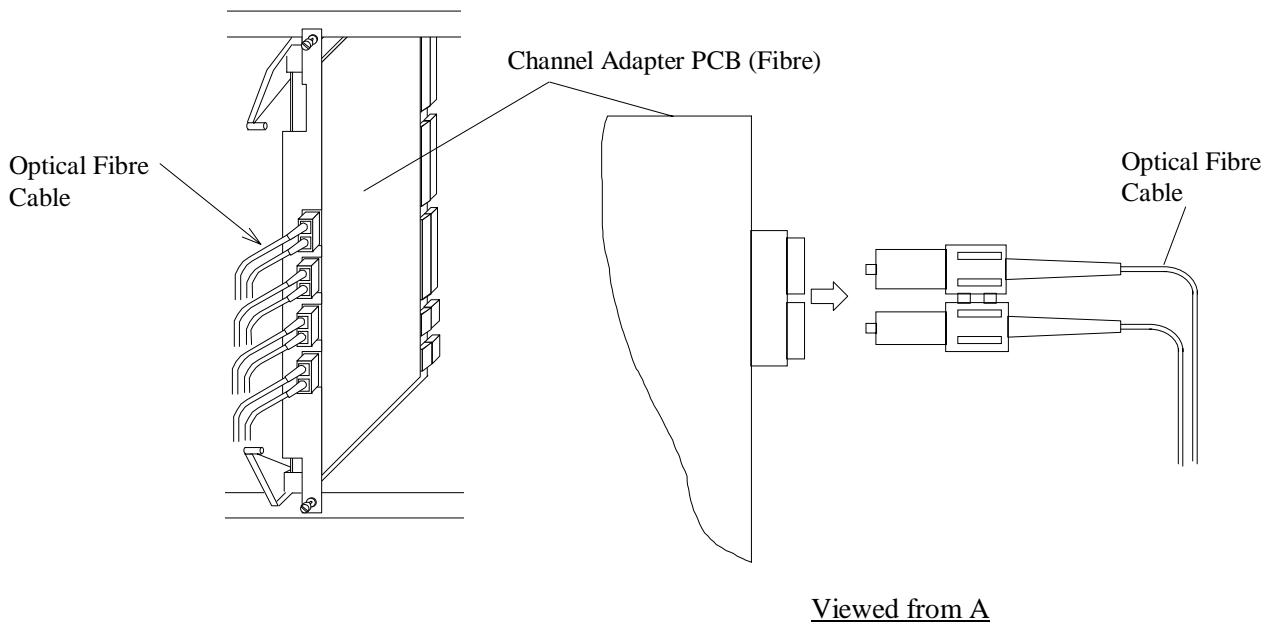
1. Check that the Shut Down LED is on. If not, connect the Shut Down Jumper to the Shut Down Connector. (only hot replace)

! CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.

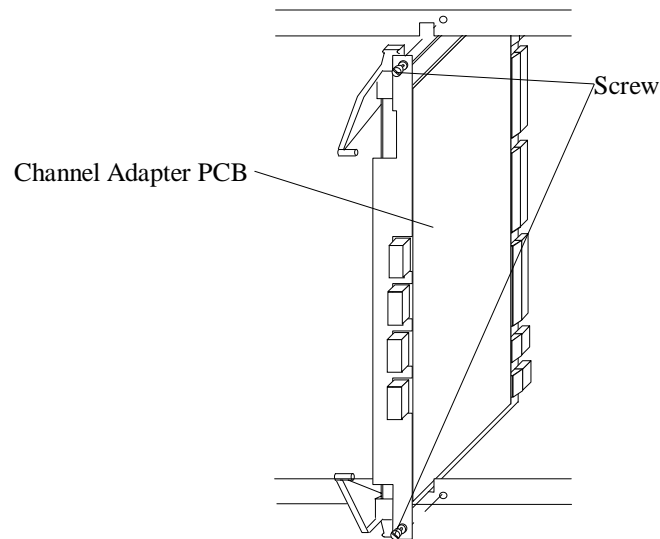


2. Disconnect the fibre cables from the failed PCB.



3. Remove the two screws and remove the failed PCB.

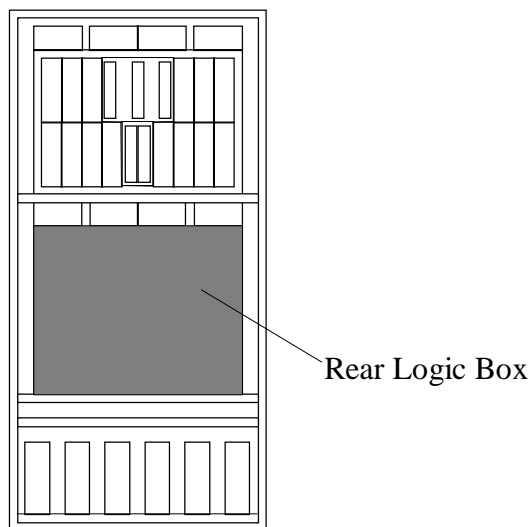
Note: If the Shut Down Jumper is used, remove it.



4. Insert the spare PCB to the correct location and fasten the two screws.
5. Connect the fibre cables to the spare PCB.
6. Go to SVP post procedure f [\[REP04-210\]](#).

[HARDWARE E]

Location	Function Name of Component		Part Name
Rear Logic Box in DKC	1	DKA (Disk Adapter) PCB	• WP425-A & SH189-A × 4



Rear View
of DKC

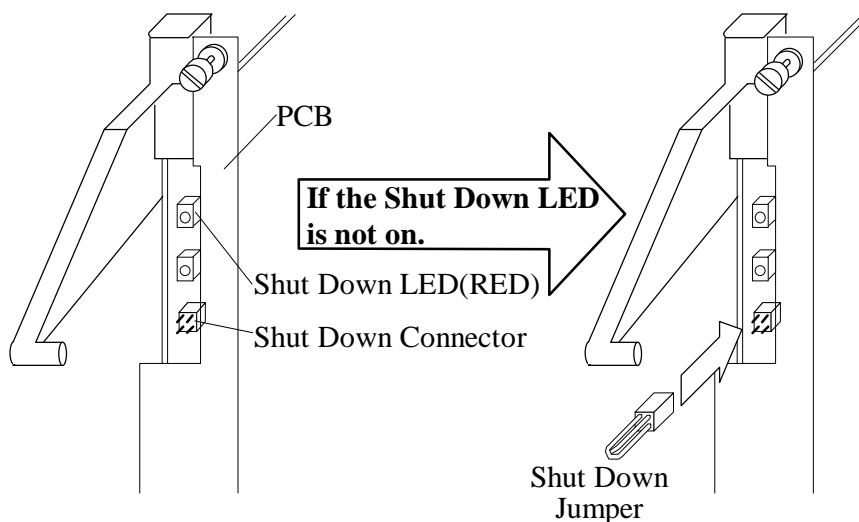
NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

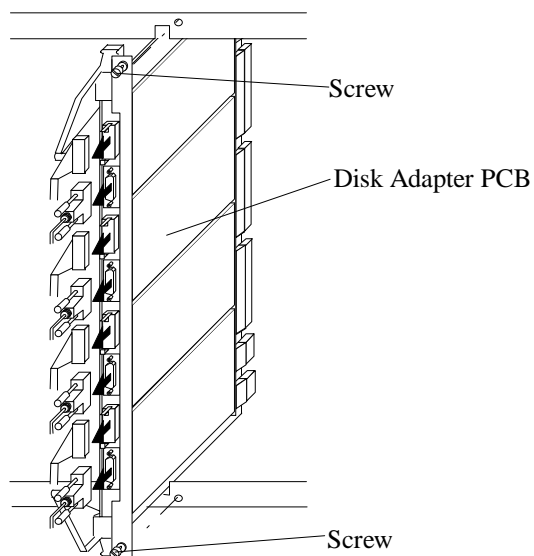
1. Check that the Shut Down LED is on. If not, connect the Shut Down Jumper to the Shut Down Connector. (only hot replace)

! CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.



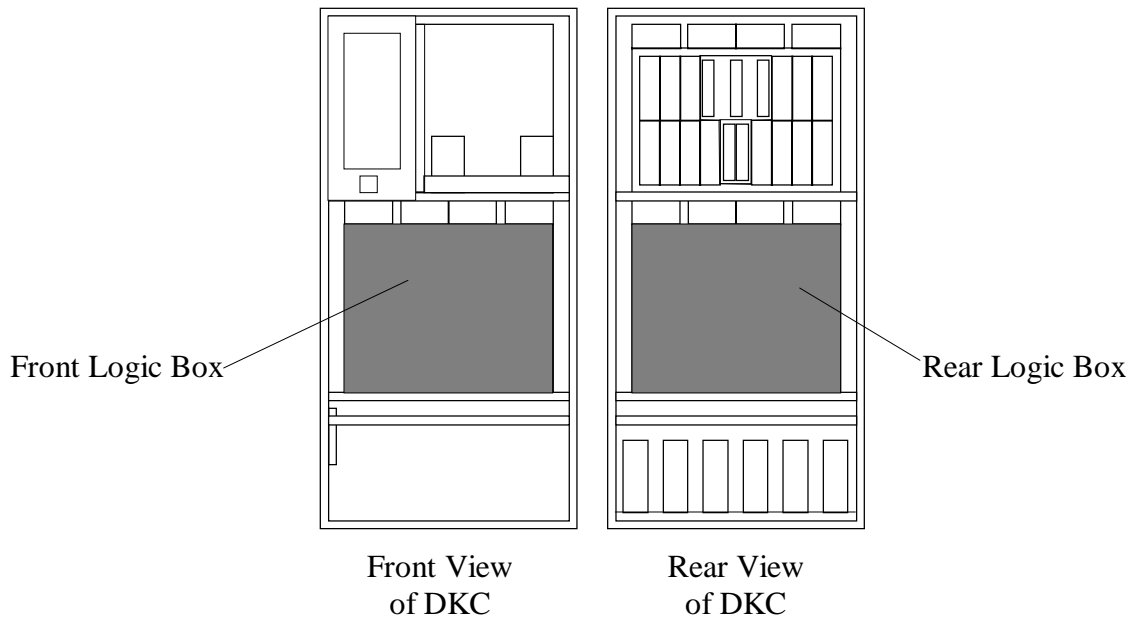
2. Remove the PCB.
 - a. Disconnect the cables.
 - b. Remove two screws and remove the failed Disk Adapter PCB.
 - c. If the Shut Down Jumper is used, remove it.



-
3. Insert the spare PCB to the correct location and fasten the screws.
-
4. Connect the cables to the spare PCB.
-
5. Go to SVP post procedure i [\[REP04-240\]](#).

[HARDWARE F]

Location	Function Name of Component		Part Name
Front Logic Box or Rear Logic Box in DKC	1	CSW PCB	<ul style="list-style-type: none"> • WP430-A • WP430-B



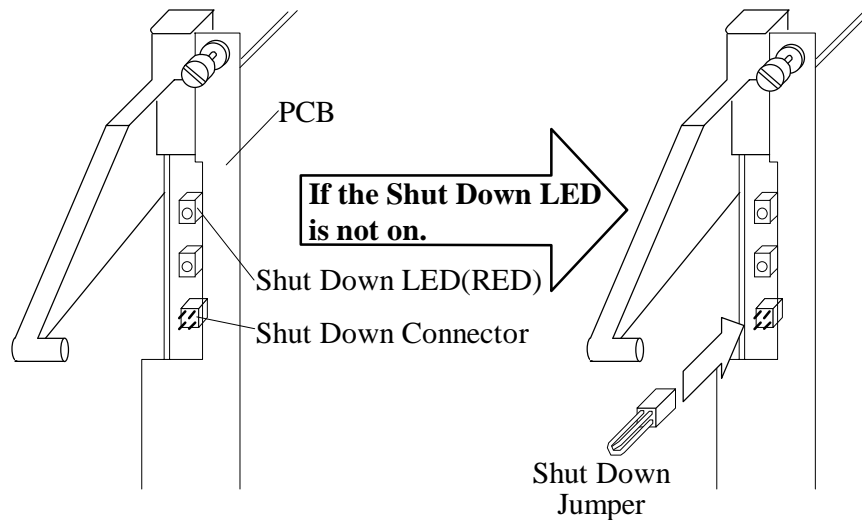
NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

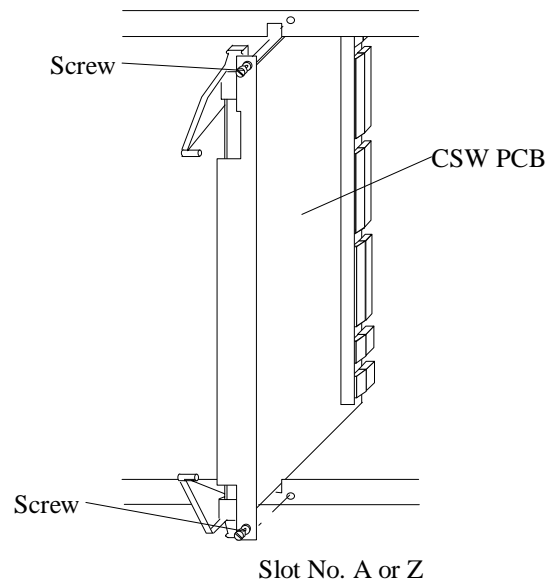
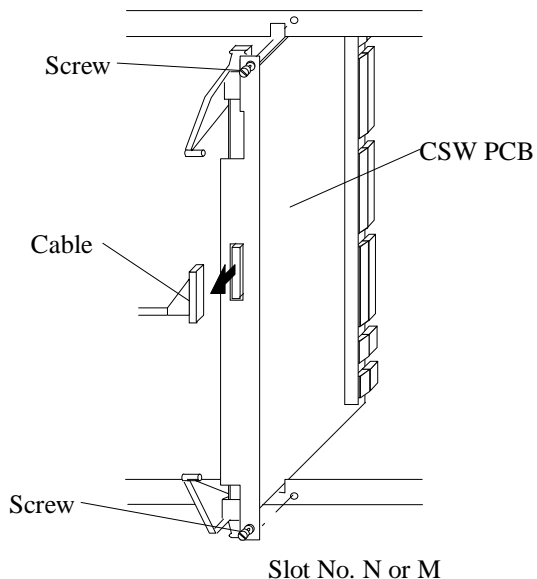
1. Check that the Shut Down LED is on. If not, connect the Shut Down Jumper to the Shut Down Connector. (only hot replace)

! CAUTION

A system down may be caused if the Shut Down jumper socket is inserted in a PCB other than that to be replaced. Make sure that it is the PCB to be replaced.



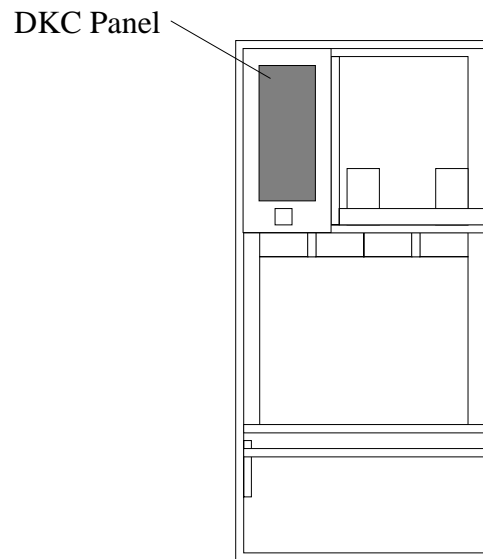
2. Remove the CSW PCB.
 - a. If the "Slot No." of the failed CSW PCB is N or M, disconnect the cable from the sub-edge of the failed PCB.
 - b. Remove the two screws and remove the failed CSW PCB.
 - c. If the Shut Down Jumper is used, remove it.



-
3. Insert the spare PCB to the correct location and fasten the screws.
(When you plug in new PCB, the Shut Down LED is lit on again.)
-
4. Connect the cable to the sub-edge of the spare PCB.
-
5. Go to SVP post procedure k [\[REP04-300\]](#).

[HARDWARE T1]

Location	Function Name of Component		Part Name
Front of DKC	1	DKC Panel	• SH196-A



Front View of DKC

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Note: The COMP signal of PCI is turned off, if the DKC Panel is removed.

1. Set the switches of the spare PCB to the same positions as those of the failed PCB.
2. Connect the DKC Panel INH jumper connector to the connector plug on the DKCMN.

! CAUTION

A system down is caused if the DKC Panel INH jumper connector is not inserted. Be sure to insert the DKC Panel INH jumper connector before starting the work.

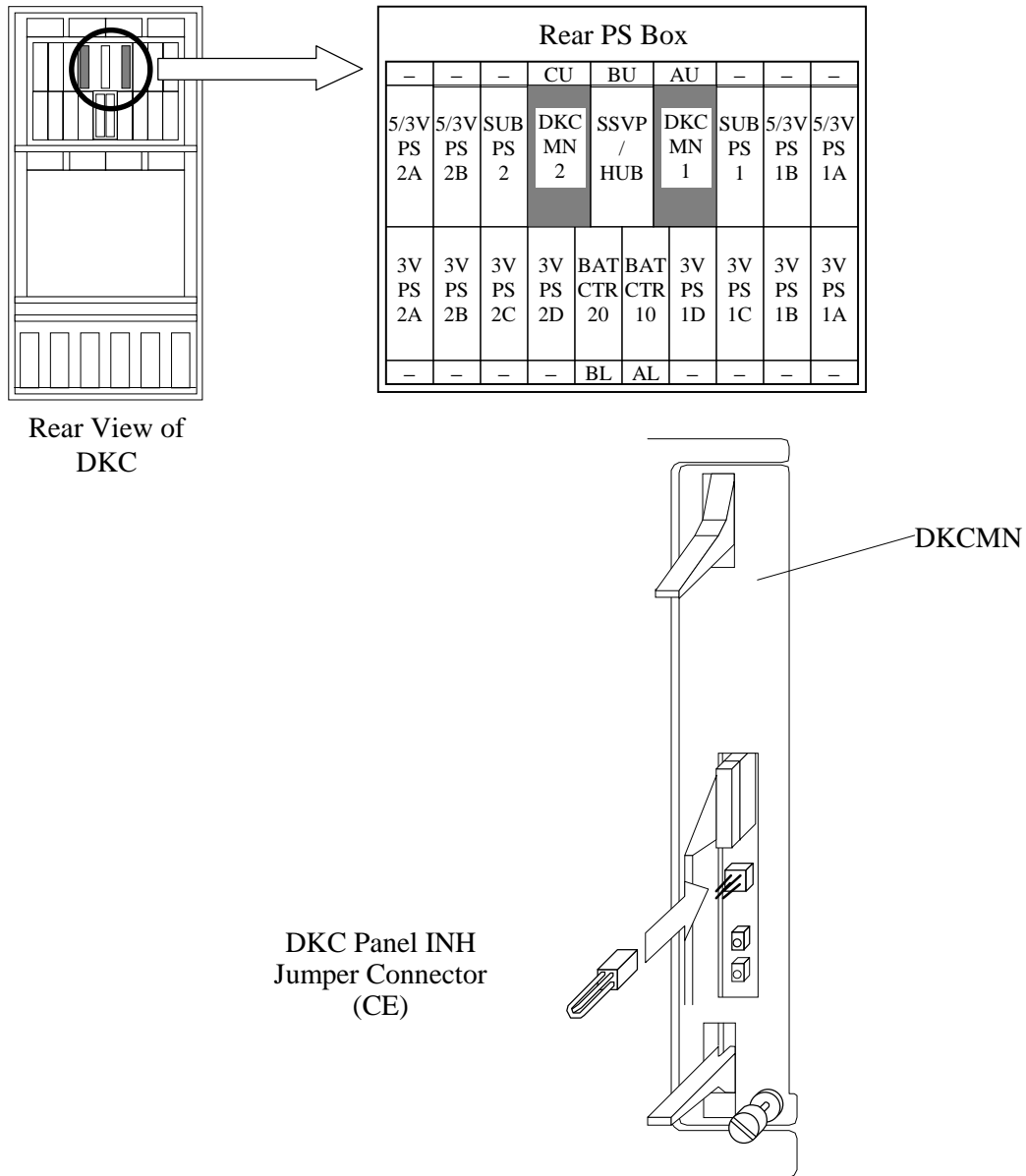


Fig. T1-1 Insertion of Jumper Connector

3. Remove the plate from the Movable rack.
 - a. Loosen the screw and remove the plate from the Movable rack.

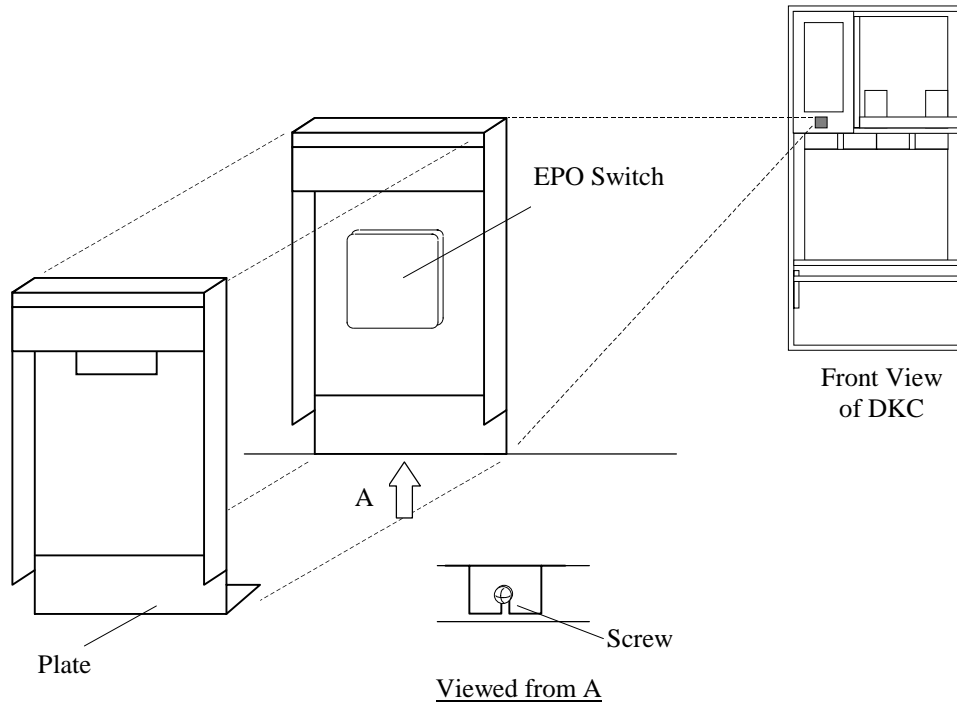
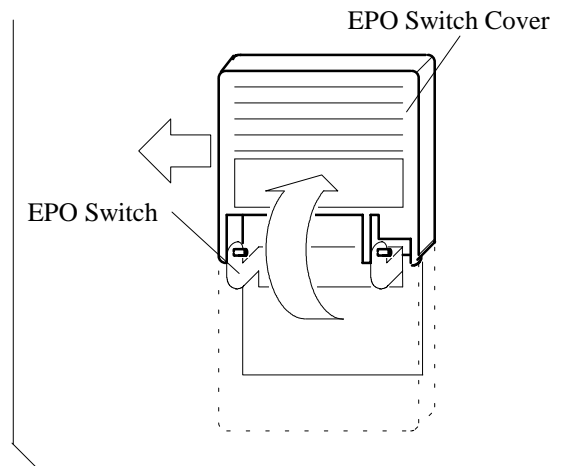


Fig. T1-2 Removal of Plate

- b. Remove the EPO Switch cover.



Front View of Movable Rack

Fig. T1-3 Removal of EPO Switch Cover

- c. Loosen the three screws and remove the plate.

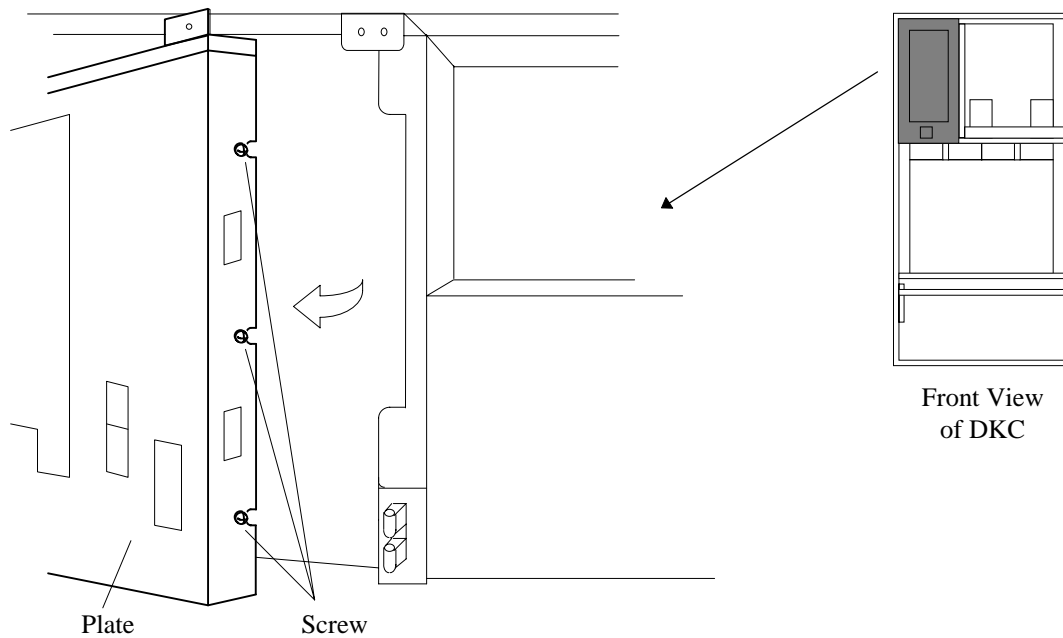


Fig. T1-4 Removal of Plate

4. Remove the PCB.
- Disconnect the cables from the DKC Panel PCB.
 - Loosen the six screws and remove the DKC Panel PCB from the Movable rack.

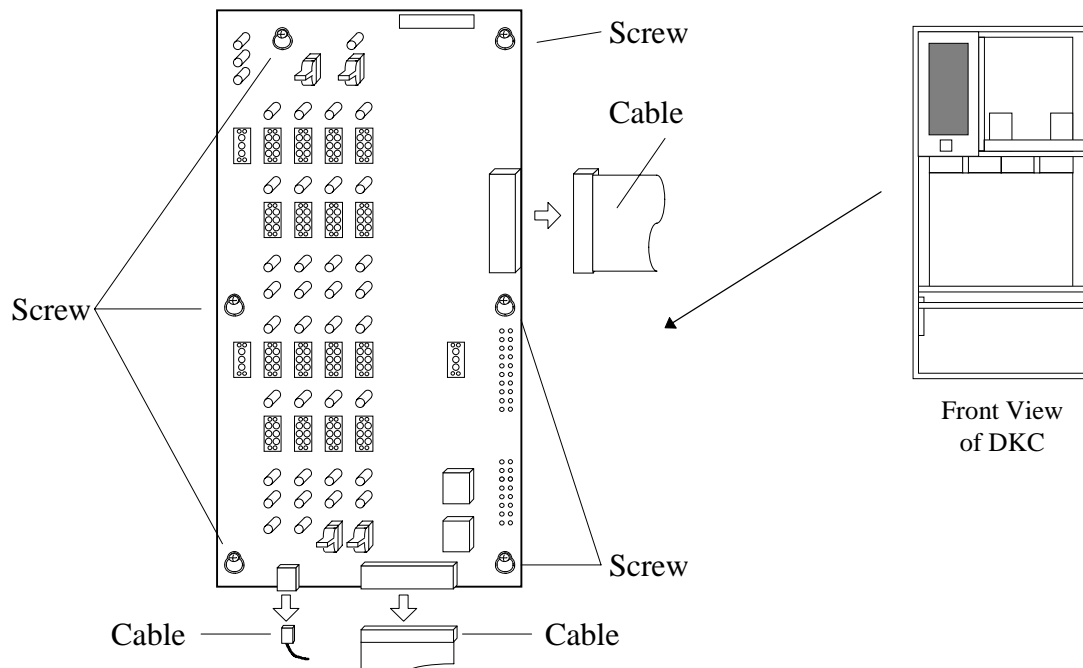


Fig. T1-5 Removal of PCB

5. Attach the PCB.
 - a. Attach the spare PCB and fasten the six screws.
 - b. Connect the cables to the spare PCB.

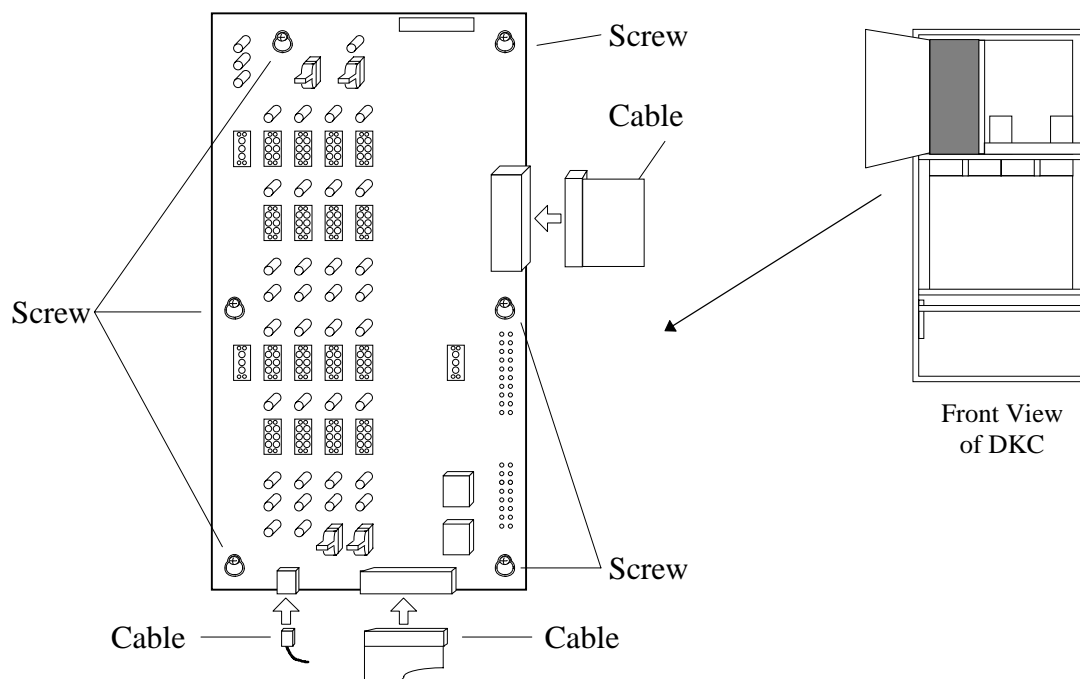


Fig. T1-6 Attachment of PCB

6. Attach the Plate.
 - a. Attach the plate to the Movable rack and fasten the three screws. Refer to Fig. T1-4.
 - b. Attach the EPO Switch cover. Refer to Fig. T1-3.
 - c. Attach the plate and fasten the screw. Refer to Fig. T1-2.

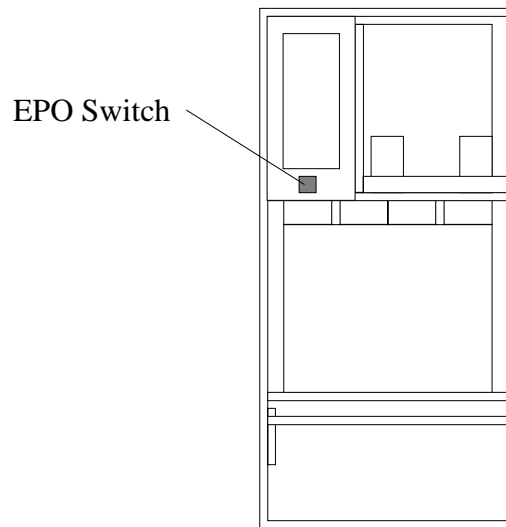
7. Go to SVP post procedure t1 [\[REP04-320\]](#).

! CAUTION

Disconnect the DKC Panel INH jumper connector from the connector plug on the DKCMN according to the guidance of SVP.

[HARDWARE T2]

Location	Function Name of Component	
Front of DKC	1	EPO Switch
(Reference) The related PCB for replacement of EPO Switch 1. DKCMN PCB (Rear PS Box in DKC)		



Front View of DKC

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

1. Connect the DKC Panel INH jumper connector to the connector plug on the DKCMN.

! CAUTION

A system down is caused if the DKC Panel INH jumper connector is not inserted. Be sure to insert the DKC Panel INH jumper connector before starting the work.

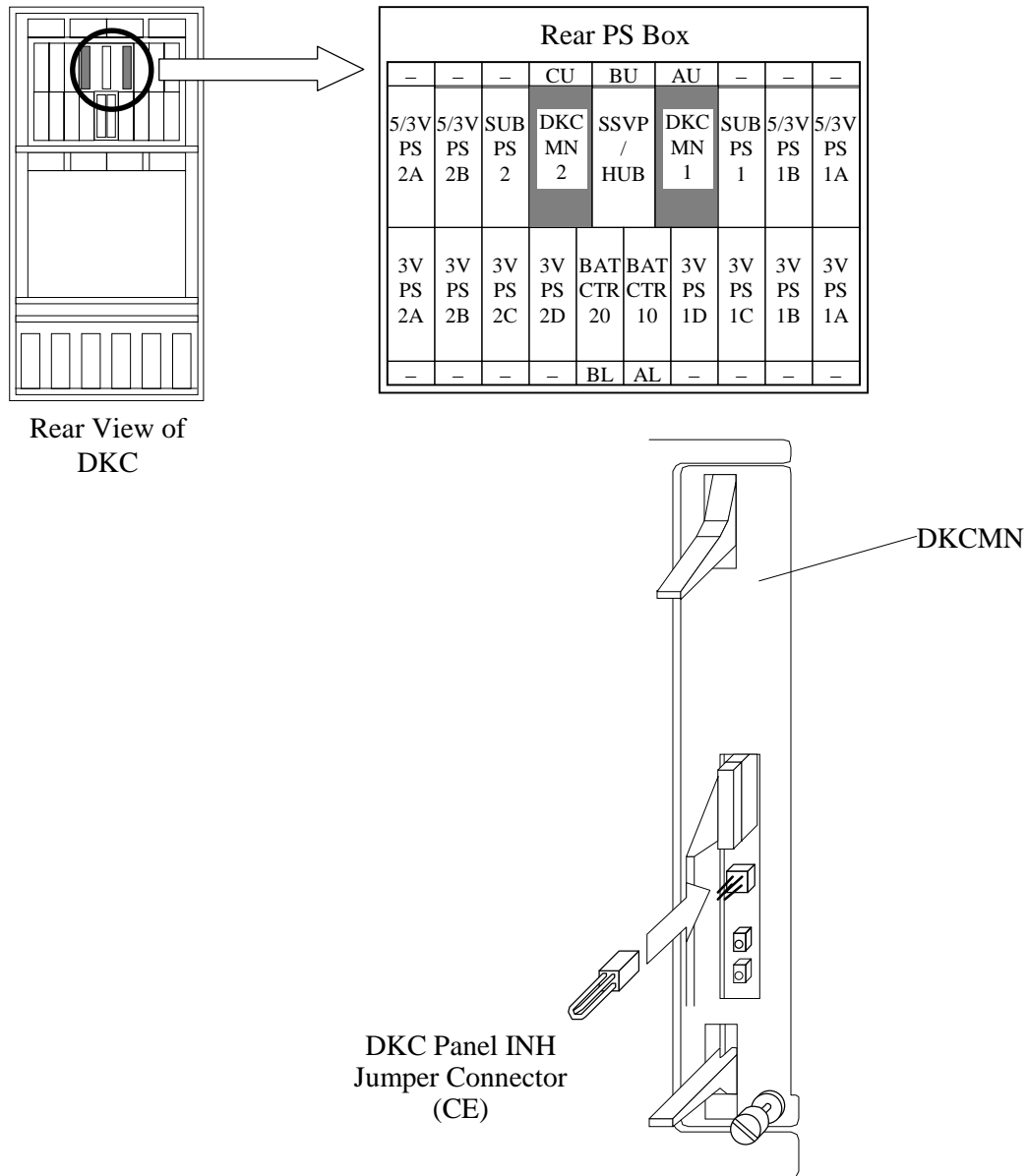


Fig. T2-1 Insertion of Jumper Connector

2. Remove the plate from the Movable rack.
 - a. Loosen the screw.
 - b. Pull the plate forward, then lift up and remove it. (Make sure you don't pull and turn off EPO switch.)

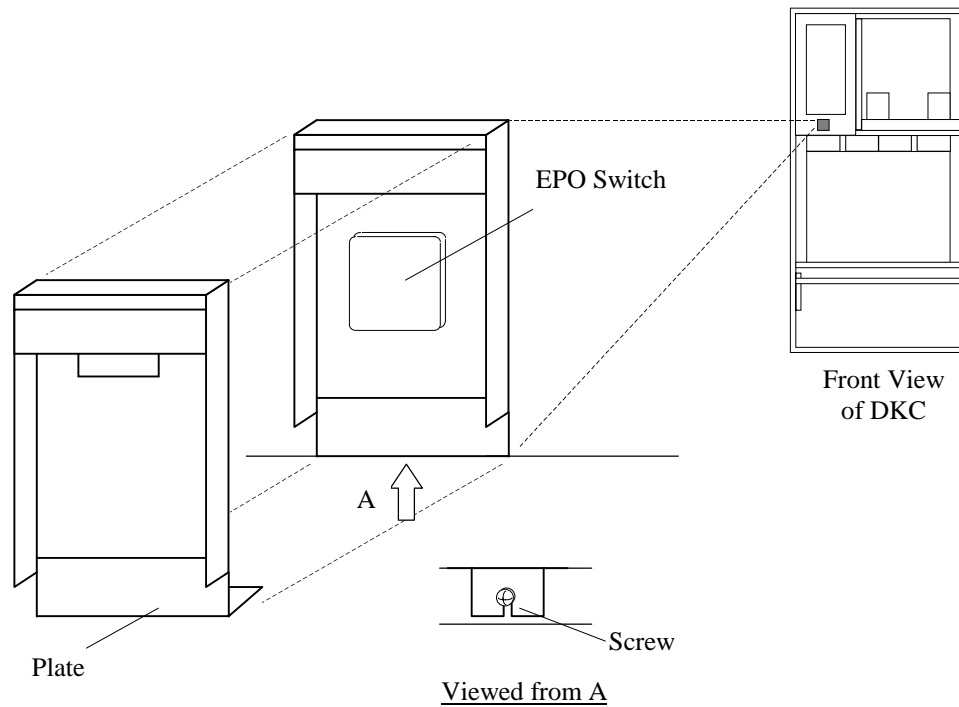


Fig. T2-2 Removal of Plate

- b. Remove the EPO switch cover.

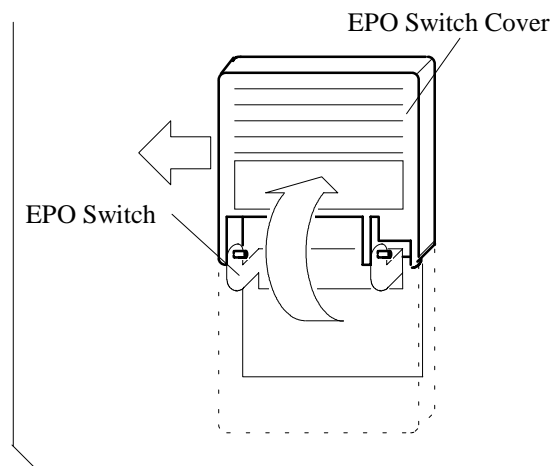


Fig. T2-3 Removal of EPO Switch Cover

- c. Loosen the three screws and remove the plate.

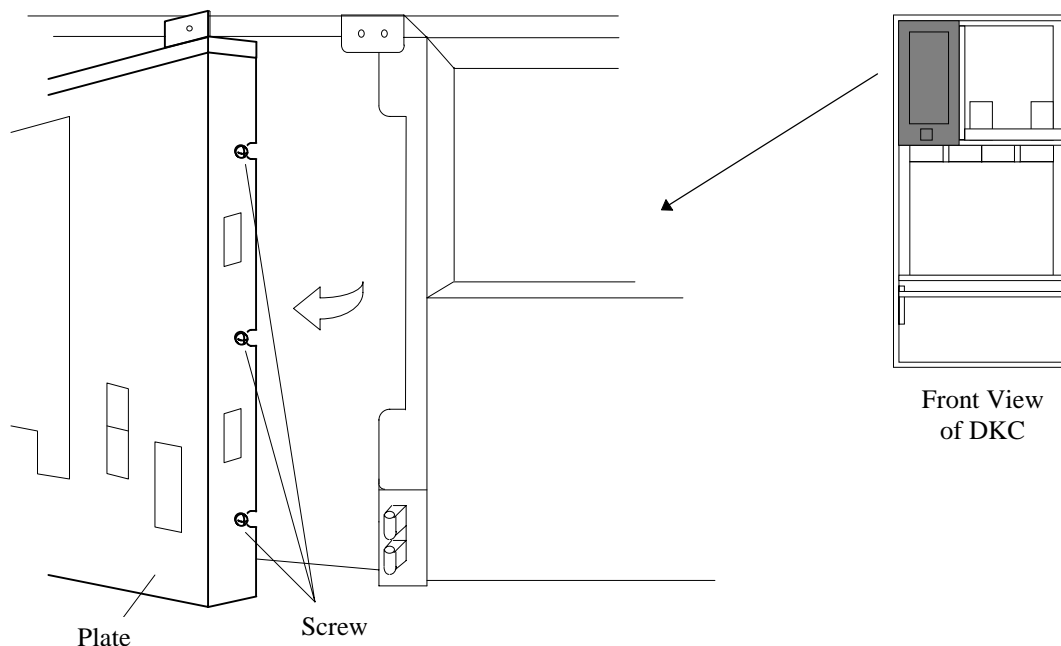
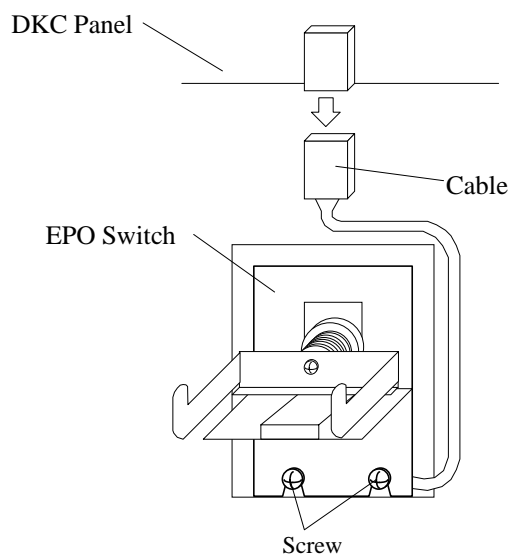


Fig. T2-4 Removal of Plate

3. Remove the EPO Switch.
 - a. Disconnect the cable from the DKC panel.
 - b. Loosen the two screws and remove the EPO switch.
 - c. Attach the spare EPO switch with the two screws.
 - d. Connect the cable to the DKC panel.
 - e. Attach the plate and fasten the three screws. Refer to Fig. T2-4.
 - f. Attach the EPO switch cover. Refer to Fig. T2-3.
 - g. Attach the plate and fasten the screw. Refer to Fig. T2-2.



Front View of Movable Rack

Fig. T2-5 Removal of EPO Switch

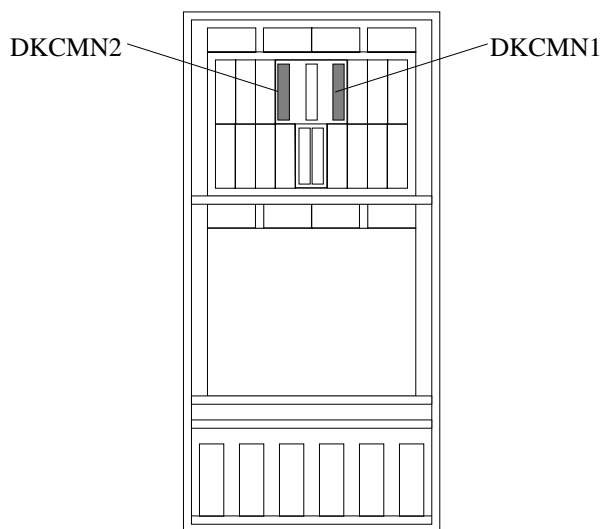
4. Go to SVP post procedure t1 [\[REP04-320\]](#).

**CAUTION**

Disconnect the DKC Panel INH jumper connector from the connector plug on the DKCMN according to the guidance of SVP.

[HARDWARE T3]

Location	Function Name of Component		Part Name
Rear PS Box in DKC	1	DKCMN1 or DKCMN2	• SH223-A



Rear View of DKC

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

DKCMN1 or DKCMN2

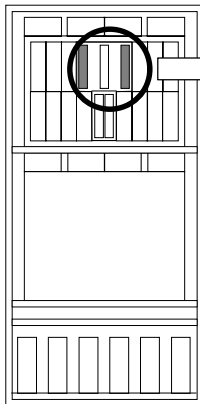
Note: Do not replace DKCMN1 PCB and DKCMN2 PCB at the same time.

If you want to replace the both PCB, first complete the replacement of one PCB and then start the replacement of the other.

1. Check that the Shut Down LED is on. (only hot replace)

! CAUTION

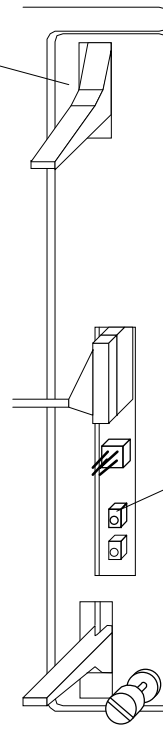
A system down is caused by a replacement of the DKCMN PCB other than that to be replaced. Make sure that it is the DKCMN PCB to be replaced.



Rear View of
DKC

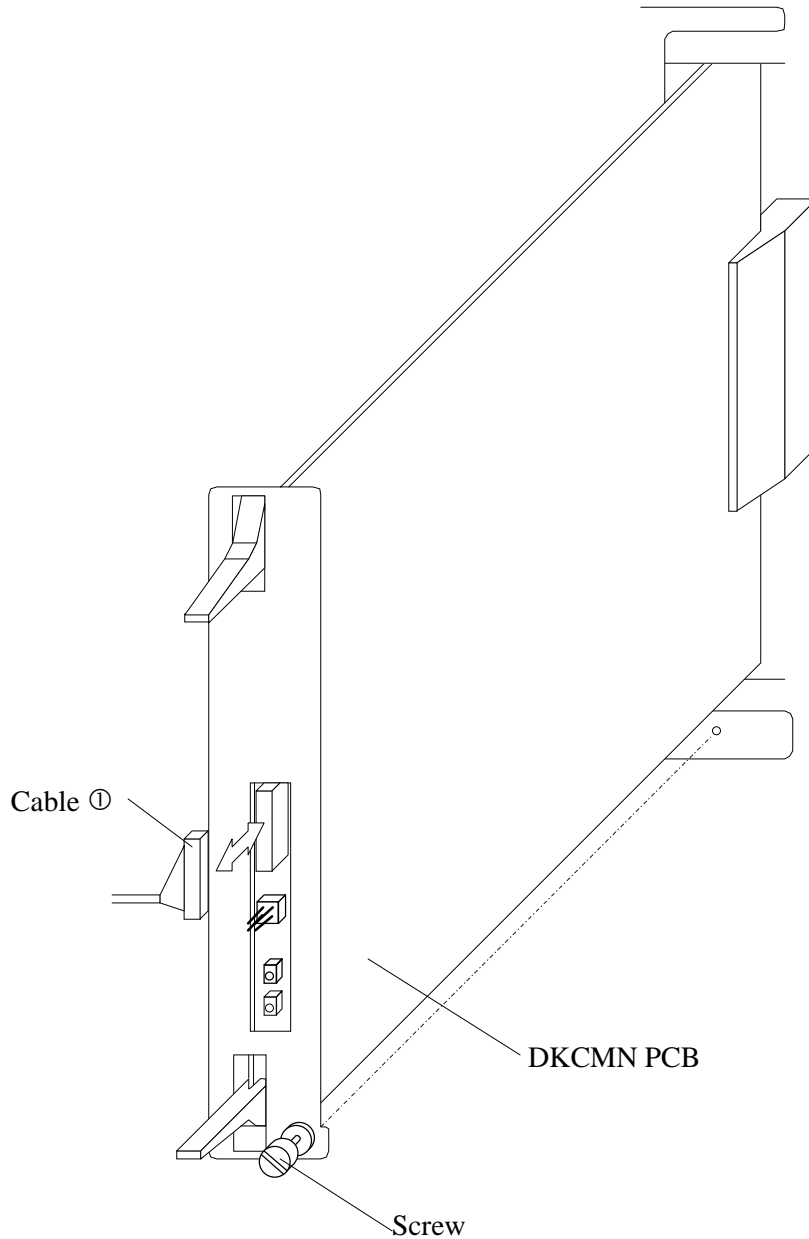
Rear PS Box									
—	—	—	CU	BU	AU	—	—	—	—
5/3V PS 2A	5/3V PS 2B	SUB PS 2	DKC MN 2	SSVP / HUB	DKC MN 1	SUB PS 1	5/3V PS 1B	5/3V PS 1A	—
3V PS 2A	3V PS 2B	3V PS 2C	3V PS 2D	BAT CTR 20	BAT CTR 10	3V PS 1D	3V PS 1C	3V PS 1B	3V PS 1A
—	—	—	—	BL	AL	—	—	—	—

DKCMN1
or
DKCMN2



Shut Down LED (RED)

2. Replace the DKCMN PCB.
 - a. Disconnect the cable from the DKCMN PCB.
 - b. Loosen the screw and remove the DKCMN PCB.
 - c. Insert the spare DKCMN PCB and fasten the screw.
 - d. Connect the cable to the spare DKCMN PCB.

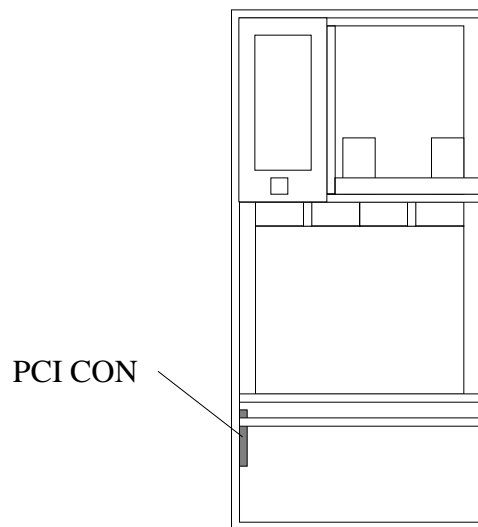


Cable No.	Cable Location	
	DKCMN1	DKCMN2
①	P2-1	P2-2

3. Go to SVP post procedure t1 [\[REP04-320\]](#).

[HARDWARE T4]

Location	Function Name of Component		Part Name
Lower left front of DKC	1	PCI CON	• SH218-A
(Reference) The related PCB for replacement of PCI CON. 1. DKC Panel PCB (Front of DKC) 2. DKCMN PCB (Rear PS Box in DKC)			



Front View of DKC

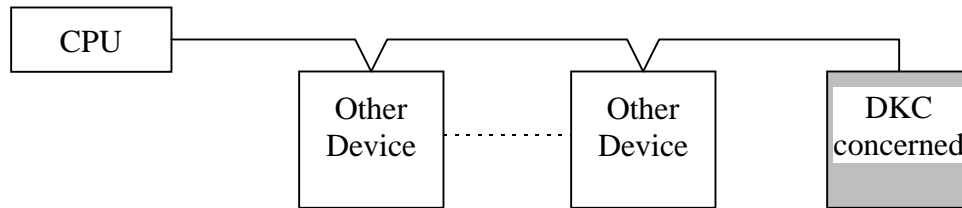
NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

! CAUTION

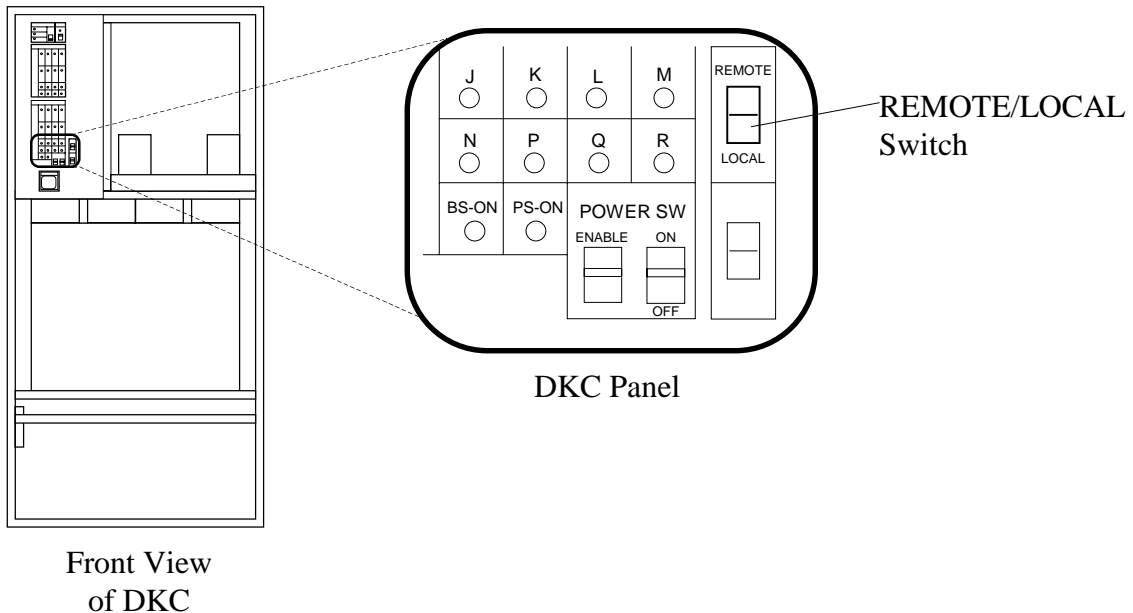
1: Replacement of PCI CON Panel causes other devices running on the same PCI connection line to be powered off except a and b shown below (because giving the EPO instruction is assumed). Therefore, stop the other device before performing replacement.

- a. If PCI cable is not connected to the replacing DKC.
- b. If the replacing DKC (DKC concerned) is connected to the end of the PCI cable as shown below.



2: The COMP signal of PCI is turned off, if the PCI cable is disconnected.

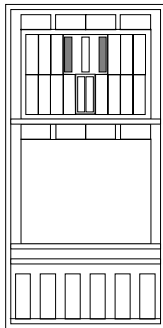
1. Confirm that the REMOTE/LOCAL Switch of DKC Panel is set to LOCAL. If not, set the REMOTE/LOCAL Switch to LOCAL.



2. Connect the DKC Panel INH jumper connector to the connector plug on the DKCMN.

! CAUTION

A system down is caused if the DKC Panel INH jumper connector is not inserted. Be sure to insert the DKC Panel INH jumper connector before starting the work.

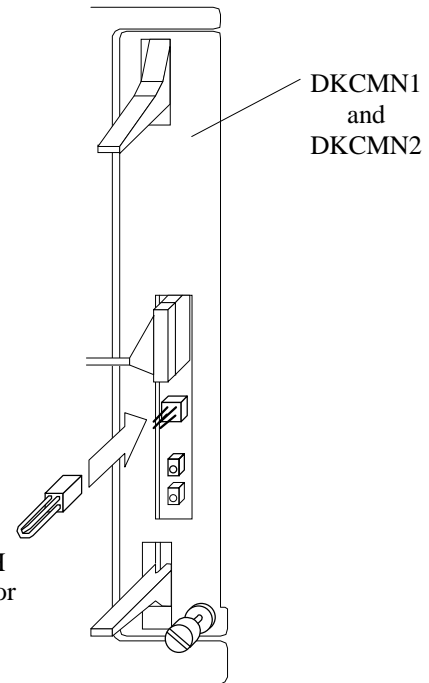


Rear View of
DKC

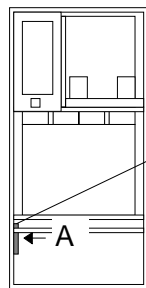
Rear PS Box

—	—	—	CU	BU	AU	—	—	—
5/3 V PS 2A	5/3 V PS 2B	SUB PS 2	DKC MN 2	SSVP / HUB	DKC MN 1	SUB PS 1	5/3 V PS 1B	5/3 V PS 1A
3V PS 2A	3V PS 2B	3V PS 2C	3V PS 2D	BAT CTR 20	BAT CTR 10	3V PS 1D	3V PS 1C	3V PS 1A
—	—	—	—	BL	AL	—	—	—

DKC Panel INH
Jumper Connector
(CE)

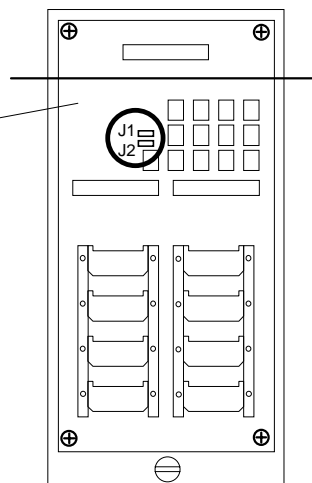


3. Set the jumper connectors(J1 and J2) of the spare PCI CON PCB to the same positions as those of the failed PCB.



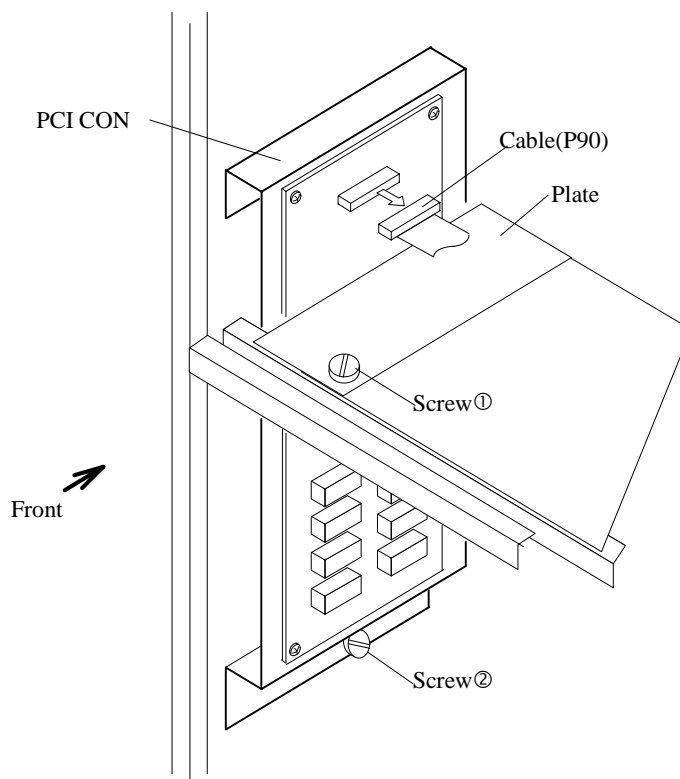
Front View
of DKC

PCI CON

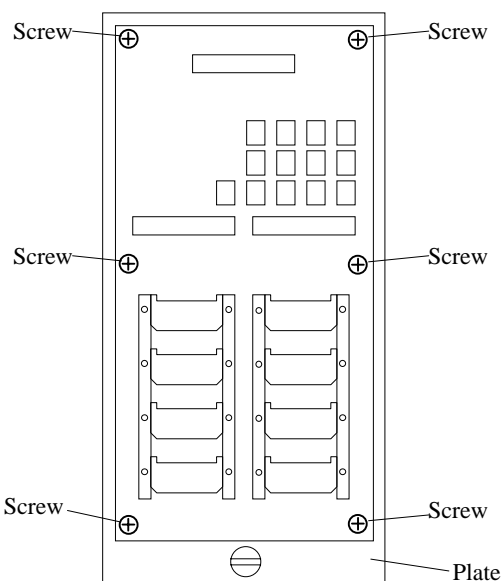


Viewed from A

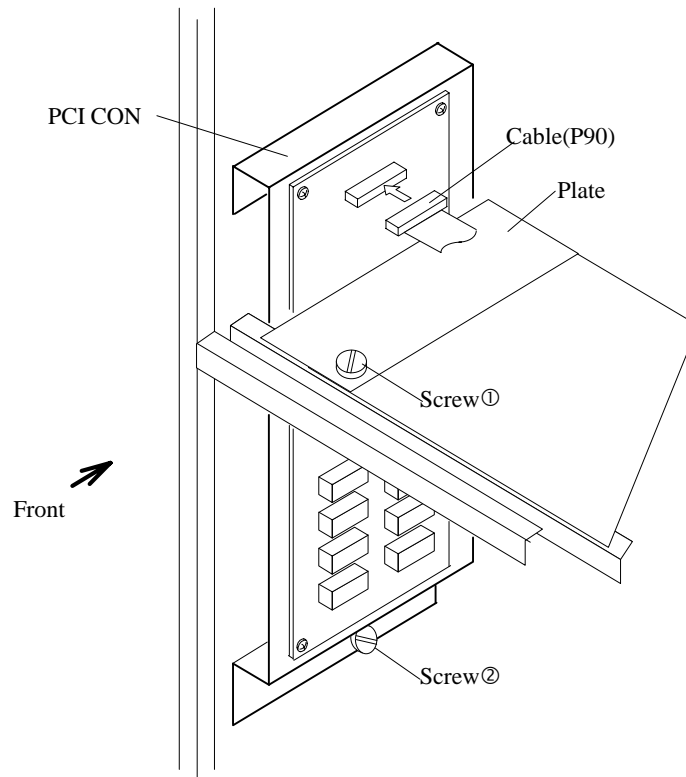
4. Replace the PCI CON.
 - a. Disconnect all cables from PCI CON.
 - b. Loosen the screw① and remove the plate.
 - c. Remove the screw② and remove the PCI CON.



5. Remove the plate from the failed PCB, and then attach them to the spare PCB.
 - a. Remove the six screws and the plate from the failed PCB.
 - b. Attach the plate to the spare PCB and fasten the six screws.



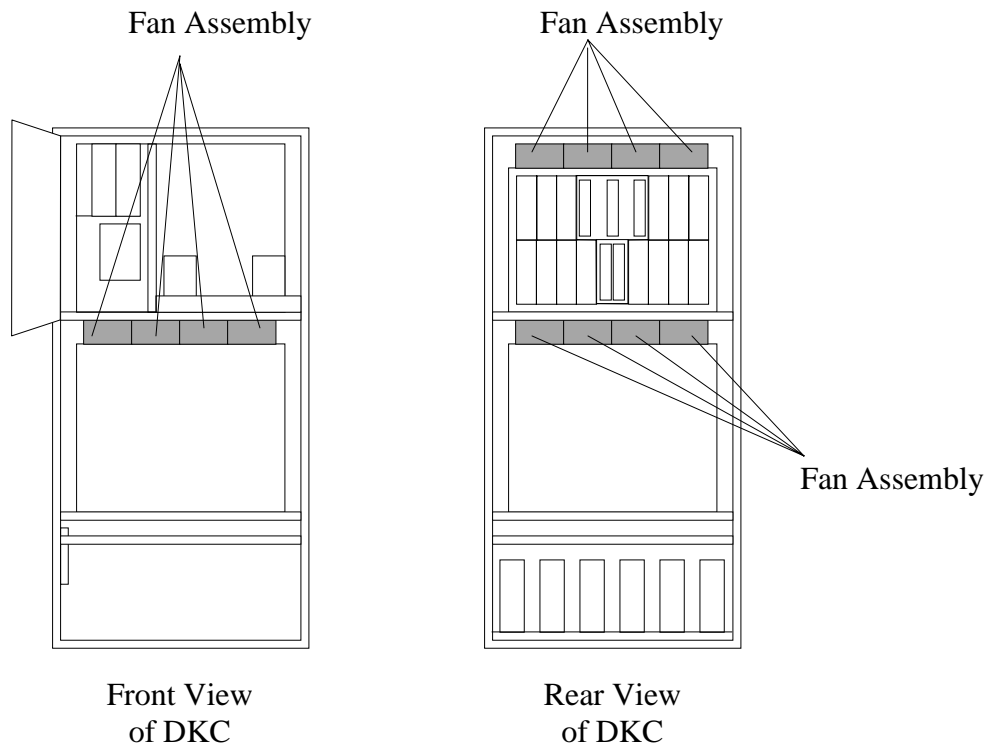
6. Attach the PCI CON.
 - a. Attach the PCI CON and fasten the screw②.
 - b. Attach the plate and fasten the screw①.
 - c. Connect the cables.



7. Restore the REMOTE/LOCAL switch on the DKC panel in step1.
8. Disconnect the DKC Panel INH jumper connector from the connector plug on the DKCMN.
9. Go to SVP post procedure t1 [\[REP04-320\]](#).

[HARDWARE T5]

Location	Function Name of Component	
Top of Box	1	Fan Assembly



NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

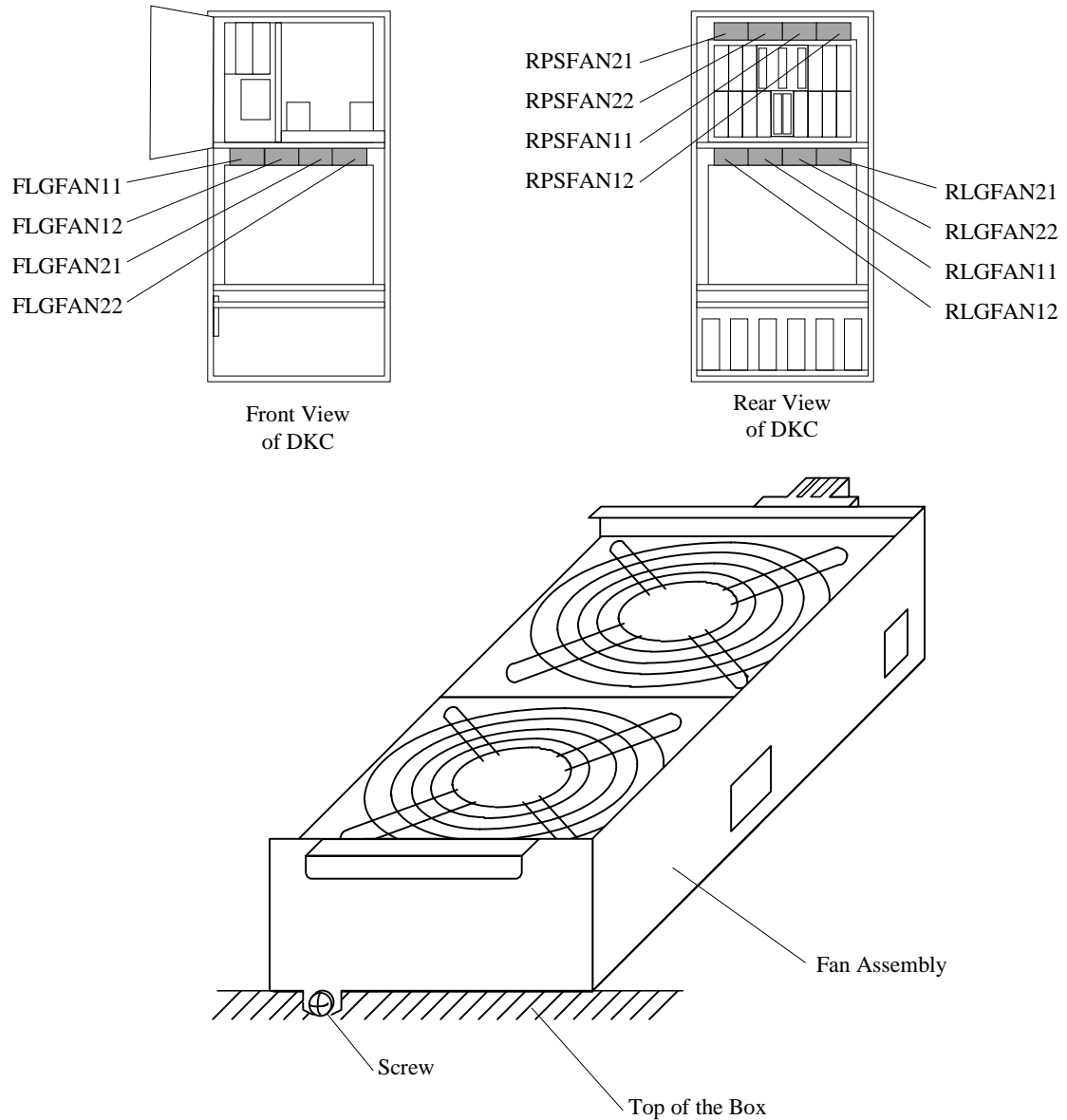
Fan Assembly

⚠ CAUTION

Hazardous rotating mechanism:

Can cause injury if touched. Stay clear of it when machine is running.

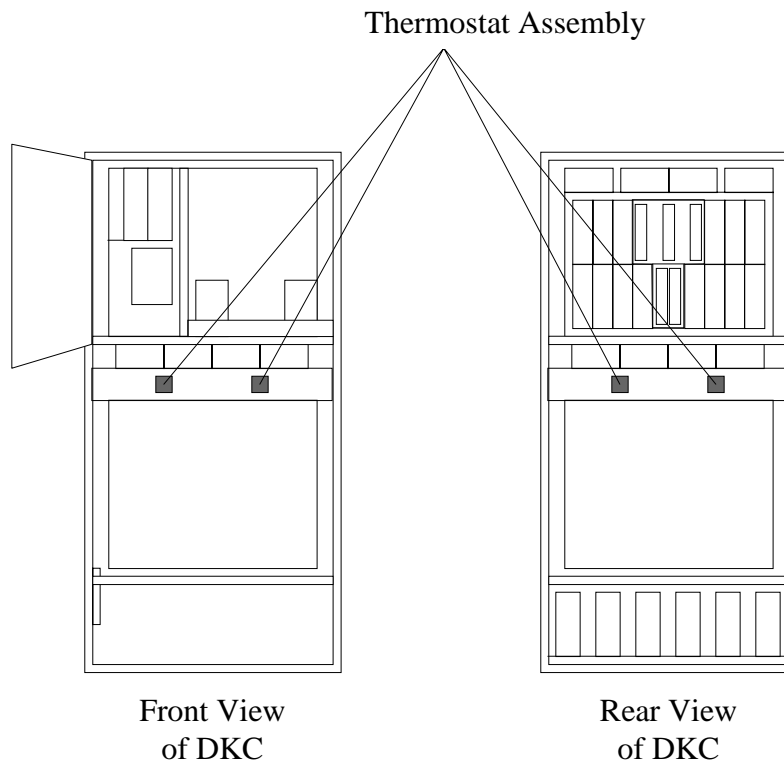
1. The following figure shows the correct way to replace the Fan Assembly.
 - a. Loosen the screw.
 - b. Replace the Fan Assembly.
 - c. Fasten the screw.



2. Go to SVP post procedure t3 [\[REP04-570\]](#).

[HARDWARE T6]

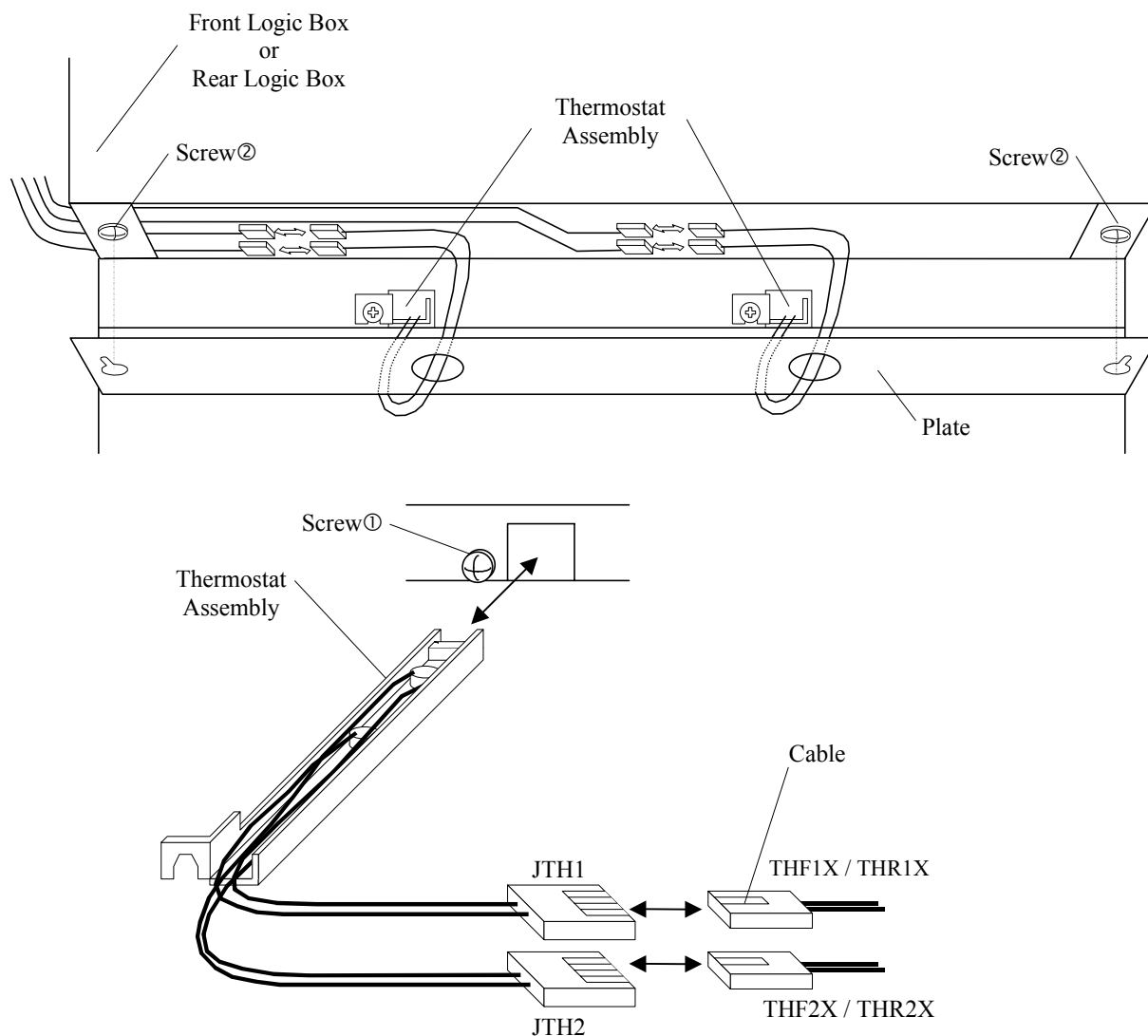
Location	Function Name of Component	
Front Logic Box or Rear Logic Box	1	Thermostat Assembly

**NOTICE:**

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Thermostat Assembly

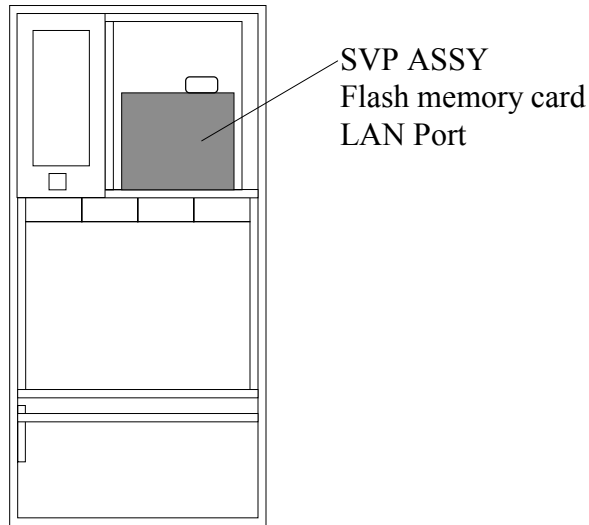
1. The following figure shows the correct way to replace the Thermostat Assembly.
 - a. Loosen the screw ① which fixes the thermostat assembly.
 - b. Loosen the two screws ② and remove the plate.
 - c. Remove the cable connected to thermostat assembly.
 - d. Replace the thermostat assembly.
 - e. Connect the attached thermostat assembly to the cable connector.
 - f. Attach the plate with the two screws ②. Be extremely careful not to pinch the cable.
 - g. Fasten the screw ①.



2. Go to SVP post procedure t3 [[REP04-570](#)].

[HARDWARE T7]

Location	Function Name of Component		Part Name
Front upside of DKC	1	SVP	<ul style="list-style-type: none"> • FLORA270V (HITACHI) • FLORA270SX (HITACHI) • FLORA270GX (HITACHI)
	2	Flash Memory Card	<ul style="list-style-type: none"> • PCCF-48 Flash memory card • PCCF-64 Flash memory card
	3	LAN Port	<ul style="list-style-type: none"> • USB-ET/T LAN Port



NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of SVP ASSY

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and turn off the power for the SVP.
3. Insert the shut-down jumper into JP1 on the RS CON PCB.
4. Remove the cables from the RS CON PCB, open the two locking clamps, and remove the cables from the hole.
5. Loosen the screws and remove the SVP cover.

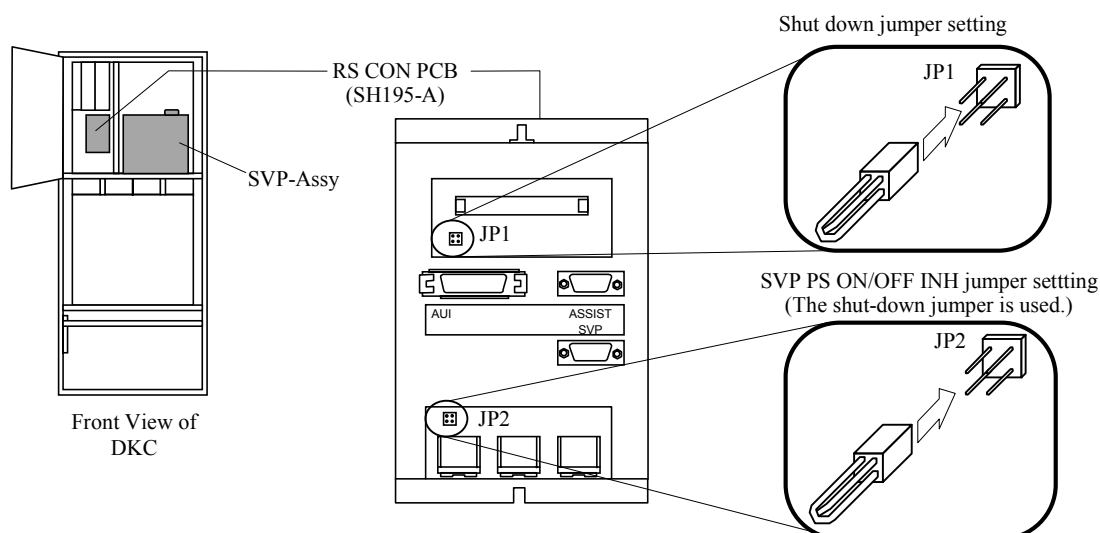
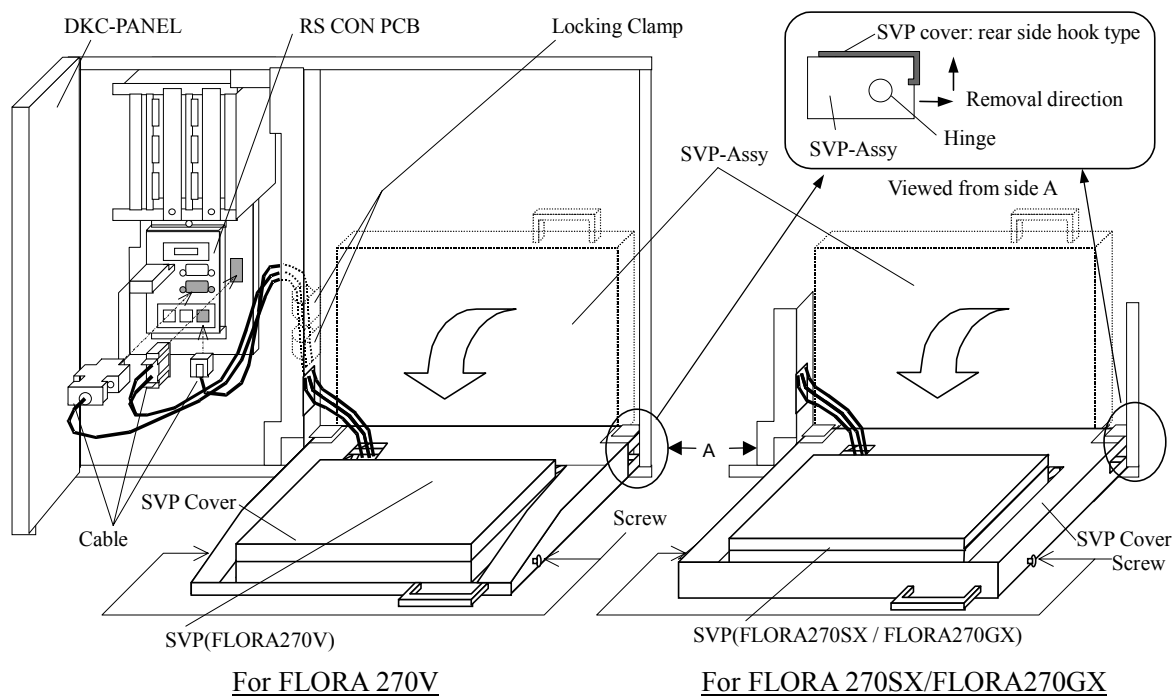


Fig. T7.1-1 Jumper settings of RS CON PCB



Note: When the SNMP support kit (DKC-F410I-SNMP) is installed, also remove the external connection cable for LAN Port USB adapter after removing the cable cover. (See [REP03-460](#) and [480](#))

Fig. T7.1-2 Removing SVP cover and cable

6. Loosen the screw and remove the stopper.
7. Pull out the defective SVP Assy.
8. Remove the flash memory card which is attached to the SVP and attach it to a spare SVP. (See [REP03-440 to 451](#).)
9. When the SNMP support kit (DKC-F410I-SNMP) is installed, remove the LAN port which is attached to the SVP and attach it to a spare SVP. (See [REP03-460 to 480](#).)
10. Install a spare SVP Assy.
 - a. Loosen the screw and remove the SVP cover and stopper from the SVP Assy.
 - b. Install the SVP Assy to the cabinet and attach the stoppers with screws. At the time, confirm that the convex sections of the stoppers are inserted into the notches of the SVP base.
 - c. Attach the SVP Assy cables to the RS CON PCB. (See Fig. T7.1-2.)
 - d. When the SNMP support kit (DKC-F410I-SNMP) is installed, also attach the external connection cable for LAN Port USB adapter. (See [REP03-460](#) and [480](#).)
 - e. Install the SVP cover.
11. Remove the shut-down jumper of the JP1 on the RS CON PCB. (See Fig. T7.1-1.)
12. Insert the SVP PS ON/OFF INH jumper into the JP2 on the RS CON PCB. (See Fig. T7.1-1.)

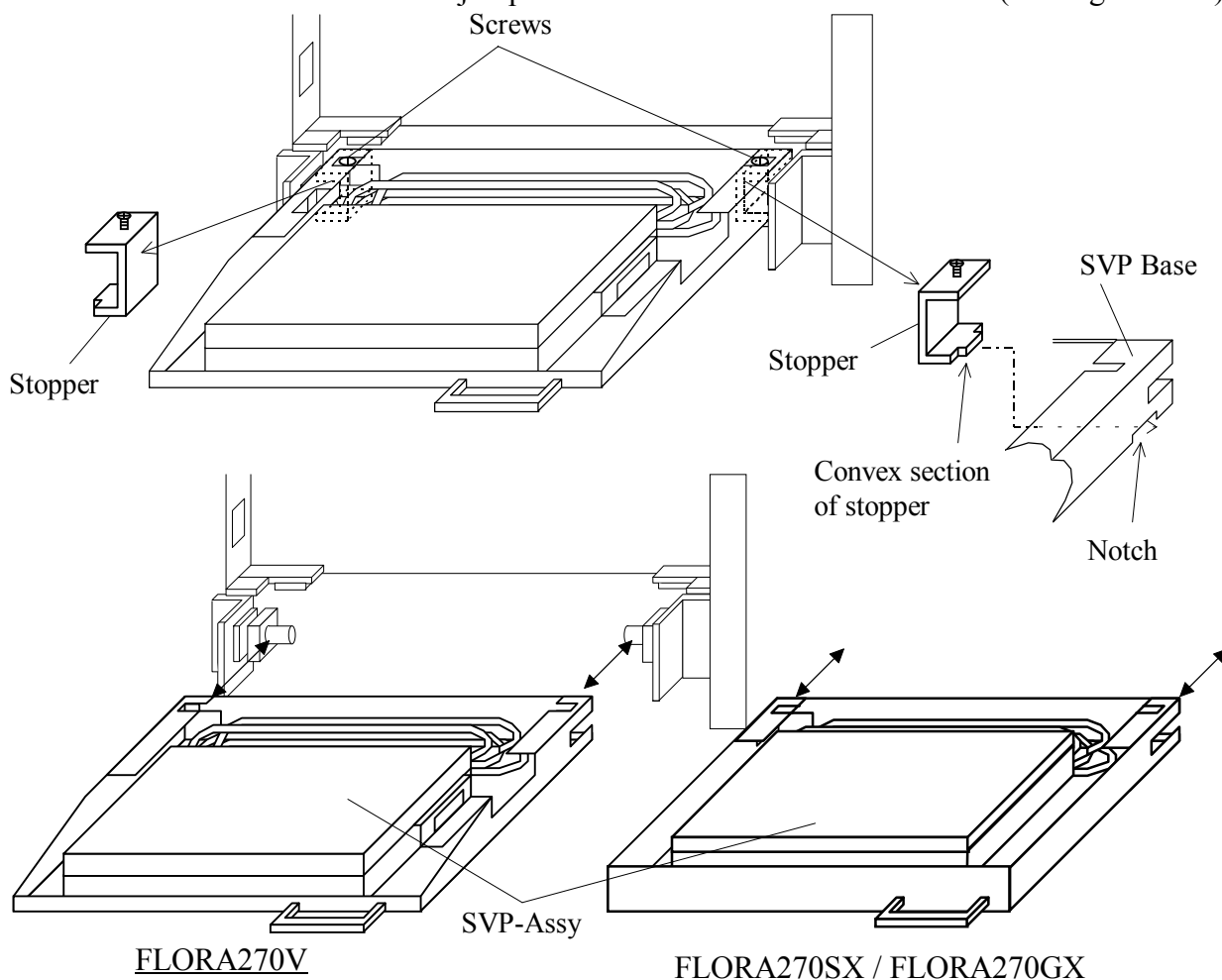


Fig. T7.1-3 Removing and installing the SVP Assy

13. Go to SVP post procedure t1 [[REP04-320](#)].

Replacement of Flash Memory Card

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and turn off the power for the SVP. (See Fig. T7.1-2 [REP03-420].)
3. Insert the shut-down jumper into JP1 on the RS CON PCB. (See Fig. T7.1-1 [REP03-420].)
4. Loosen the screws and remove the SVP cover. (See Fig. T7.1-2 [REP03-420].)
5. Operate the card IN/OUT lever to remove the flash memory card from the SVP.
6. Flash memory card.

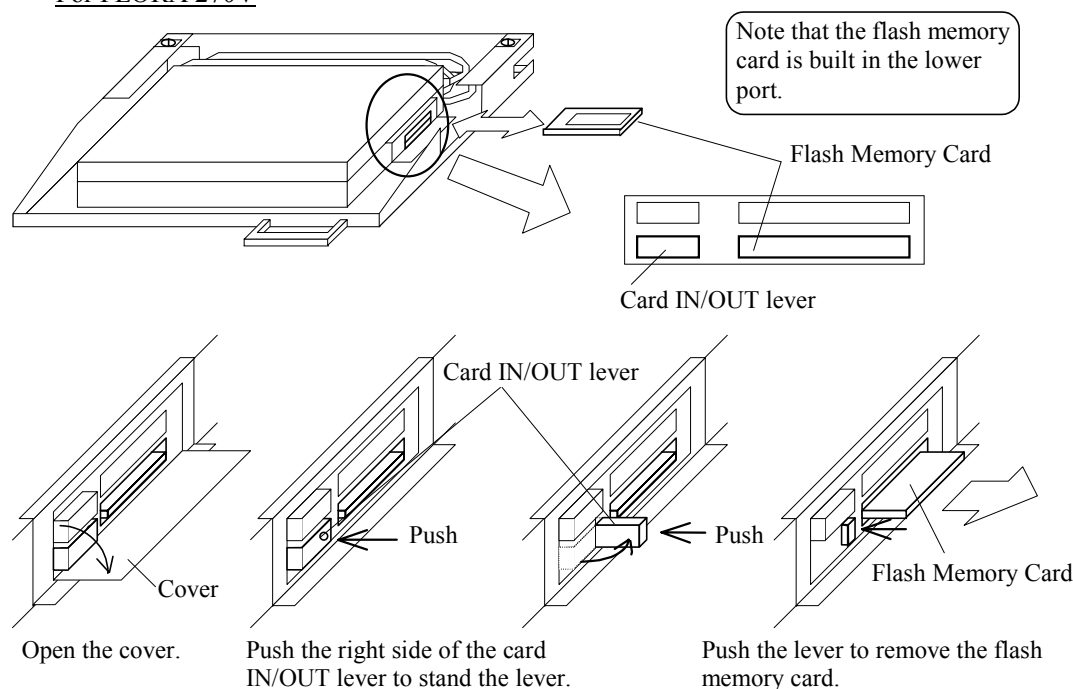
[FLORA270V]

Insert a spare flash memory card.

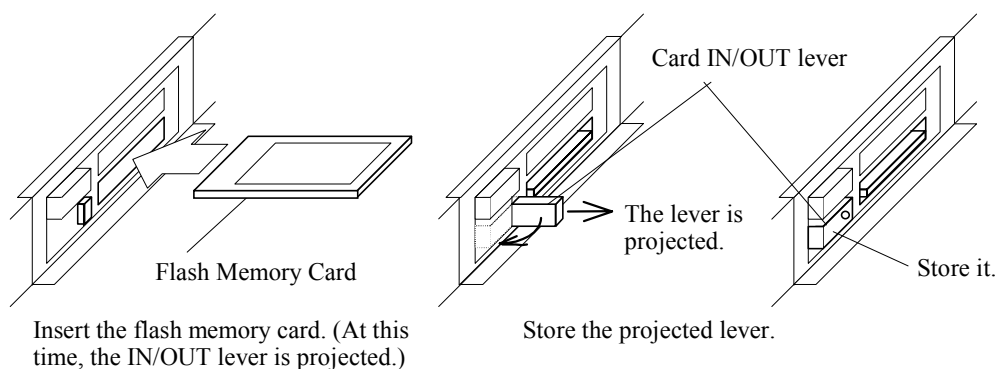
[FLORA270SX, FLORA270GX]

In this step, do not insert a spare flash memory card because it will be inserted in [Post-Procedure t1].

For FLORA 270V



How to remove the flash memory card



Installing the flash memory card.

Fig. T7.2-1 Replacing the flash memory card (for FLORA 270V)

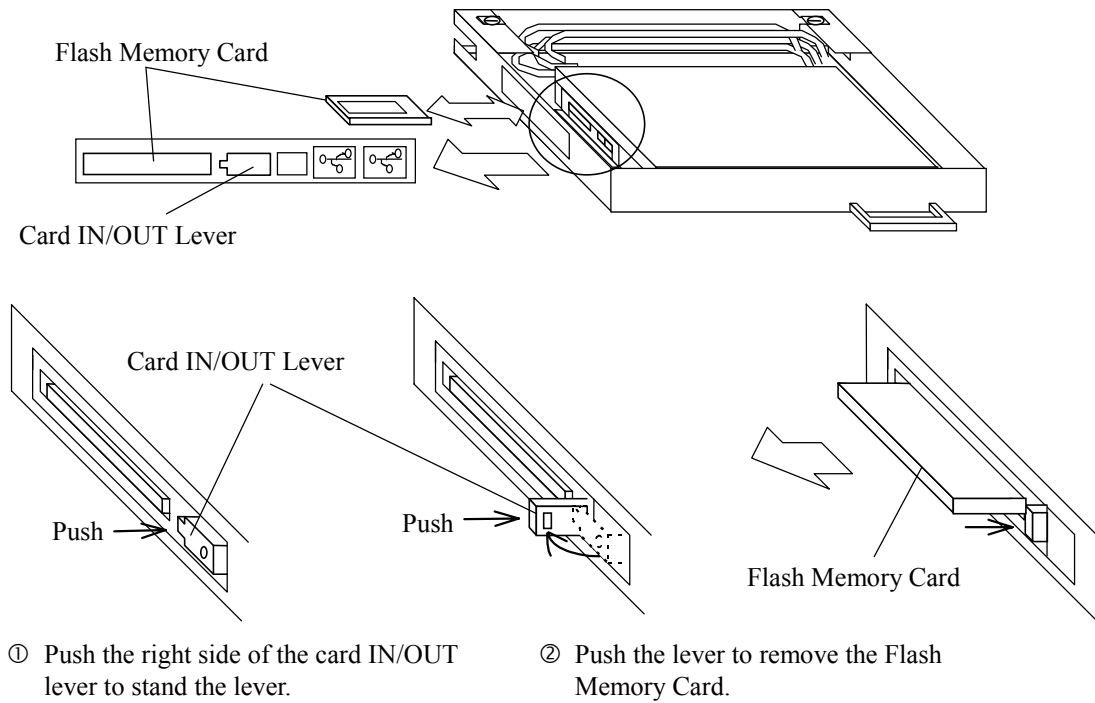
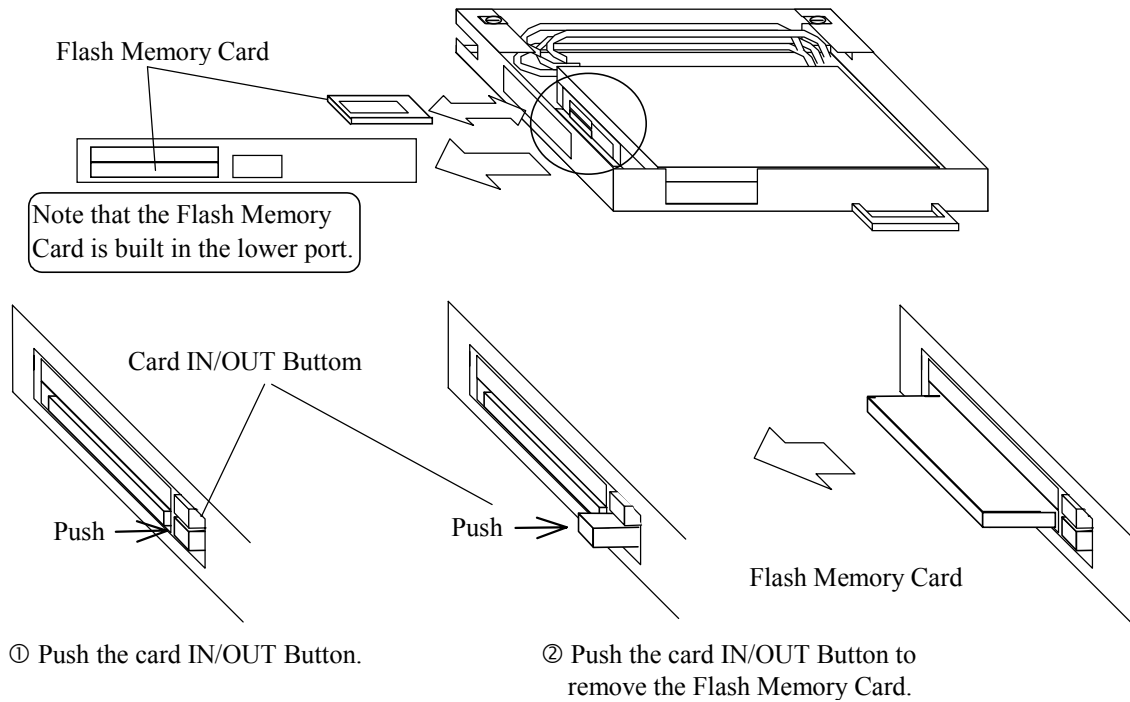
For FLORA270SXHow to remove the Flash Memory Card

Fig. T7.2-2 Removing the flash memory card (for FLORA 270SX)

For FLORA270GX



How to remove the Flash Memory Card

Fig. T7.2-3 Removing the flash memory card (for FLORA 270GX)

7. Attach the SVP cover.
8. Pull out the shut-down jumper on the RS CON PCB. (See Fig. T7.1-1 [[REP03-420](#)].)
9. Go to SVP post procedure t1 [[REP04-320](#)].

Replacement of LAN Port

1. Open the front door, and then open the DKC panel.
2. Open the SVP Assy and turn off the power for the SVP. (See Fig. T7.1-2 [REP03-420].)
3. Insert the shut-down jumper into the JP1 on the RS CON PCB. (See Fig. T7.1-1 [REP03-420].)
4. Loosen the screws and remove the SVP cover. (See Fig. T7.1-2 [REP03-420].)
Loosen the screw and remove the cable cover.
5. Open the repeat binder, and remove the LAN port from the SVP and ferrite filter.
6. Attach a spare LAN port.

For FLORA 270V

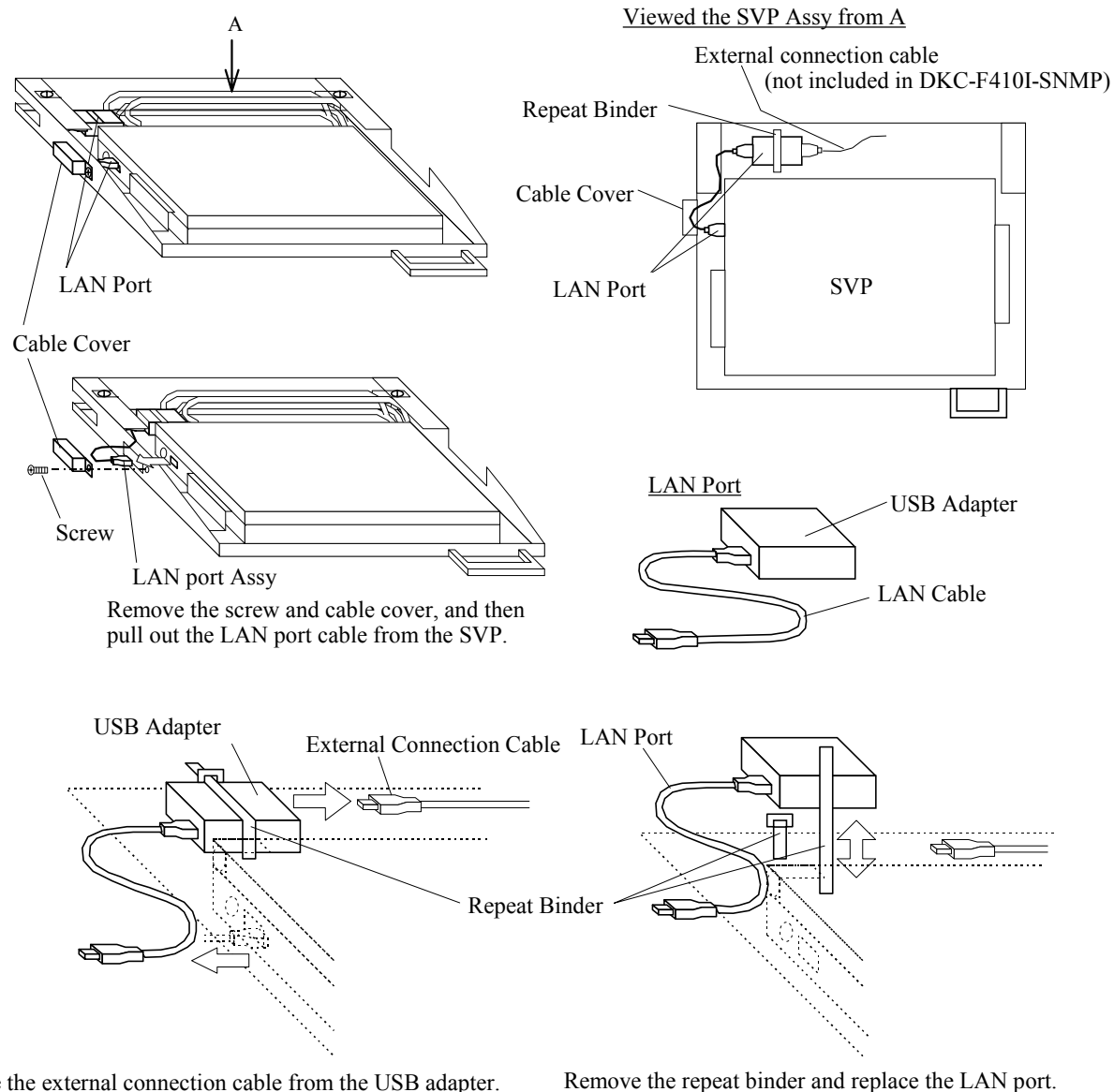
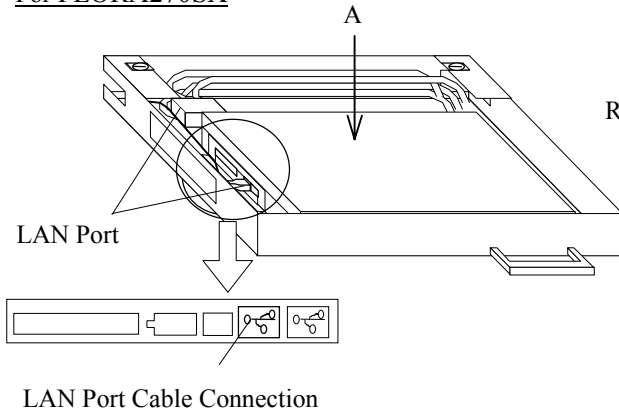
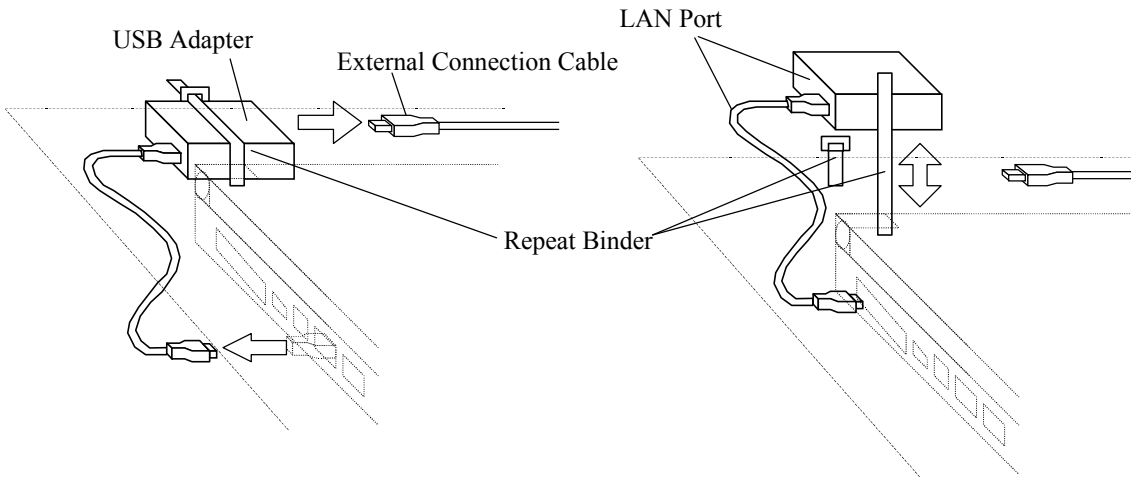
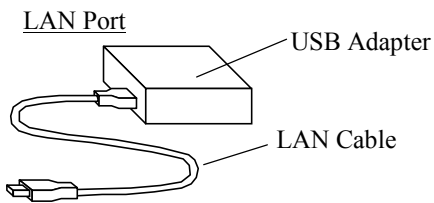
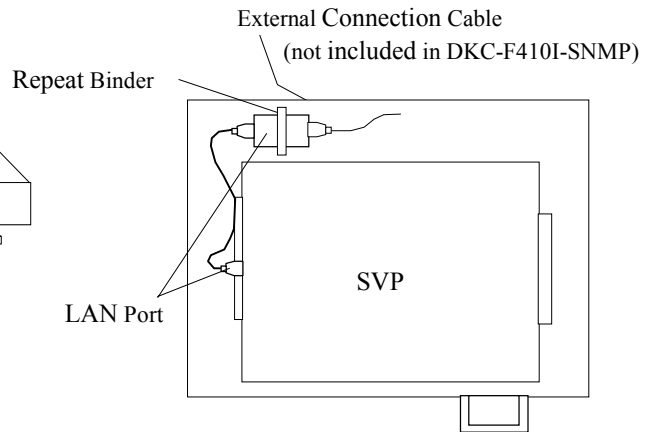


Fig. T7.3-1 Replacing the LAN port (For FLORA 270V)

For FLORA270SX



Viewed the SVP Assy from A



Pull out the LAN port cable from the SVP, and remove the external connection cable from the USB adapter.

Remove the repeat binder and replace the LAN port.

Fig. T7.3-2 Replacing the LAN port (For FLORA 270SX)

For FLORA270GX

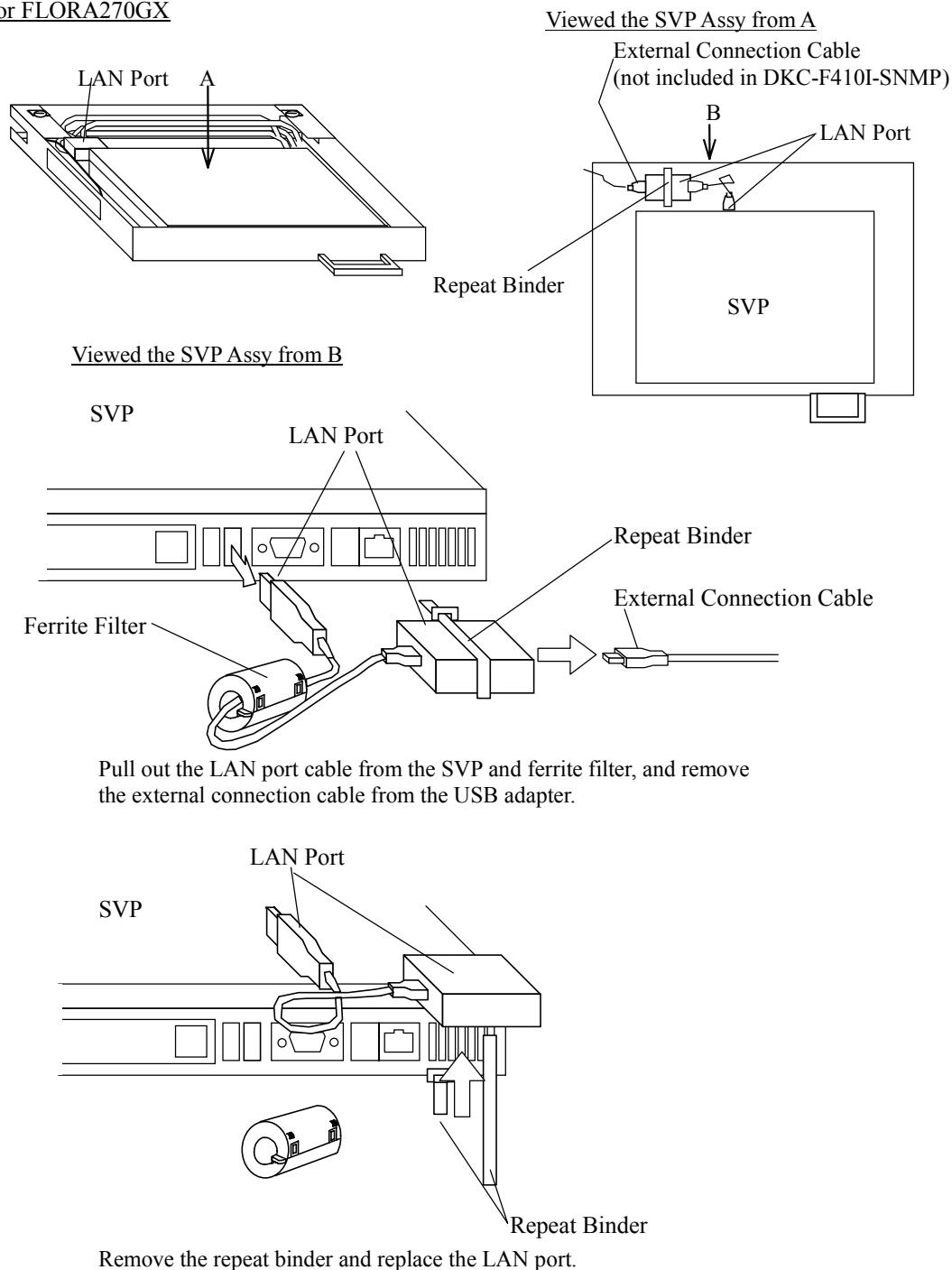
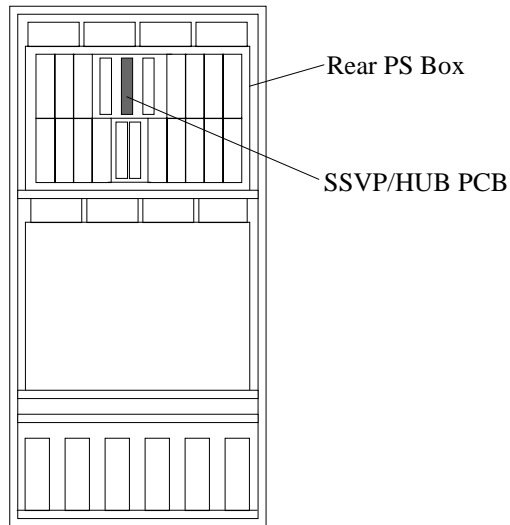


Fig. T7.3-3 Replacing the LAN port (For FLORA 270GX)

7. Attach the SVP cover.
8. Pull out the shut-down jumper on the RS CON PCB. (See Fig. T7.1-1 [[REP03-420](#)].)
9. Go to SVP post procedure t1 [[REP04-320](#)].

[HARDWARE T8]

Location	Function Name of Component		Part Name
Rear PS Box in DKC	1	SSVP/HUB PCB	• SH222-A



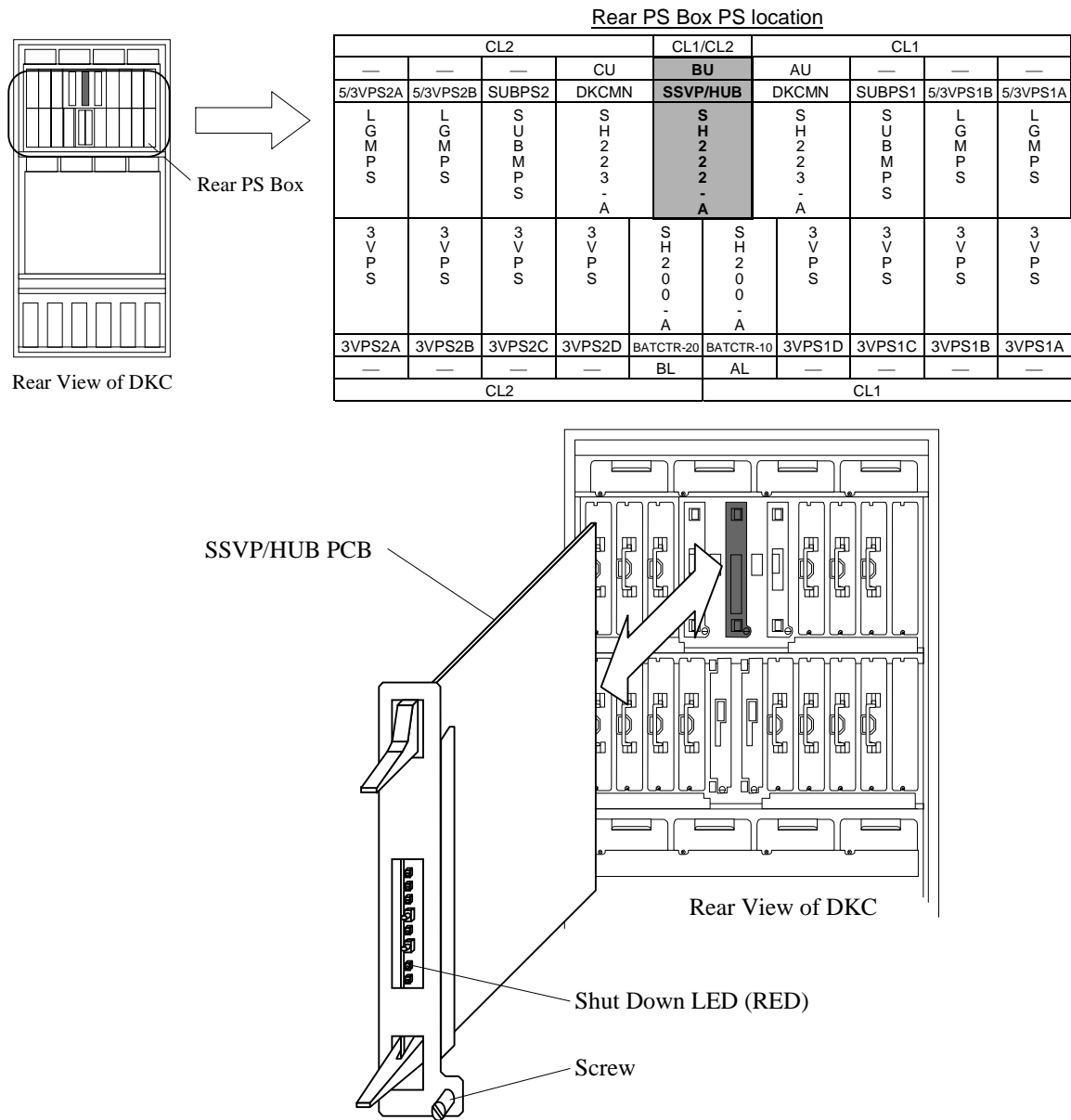
Rear View of DKC

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

SSVP/HUB PCB

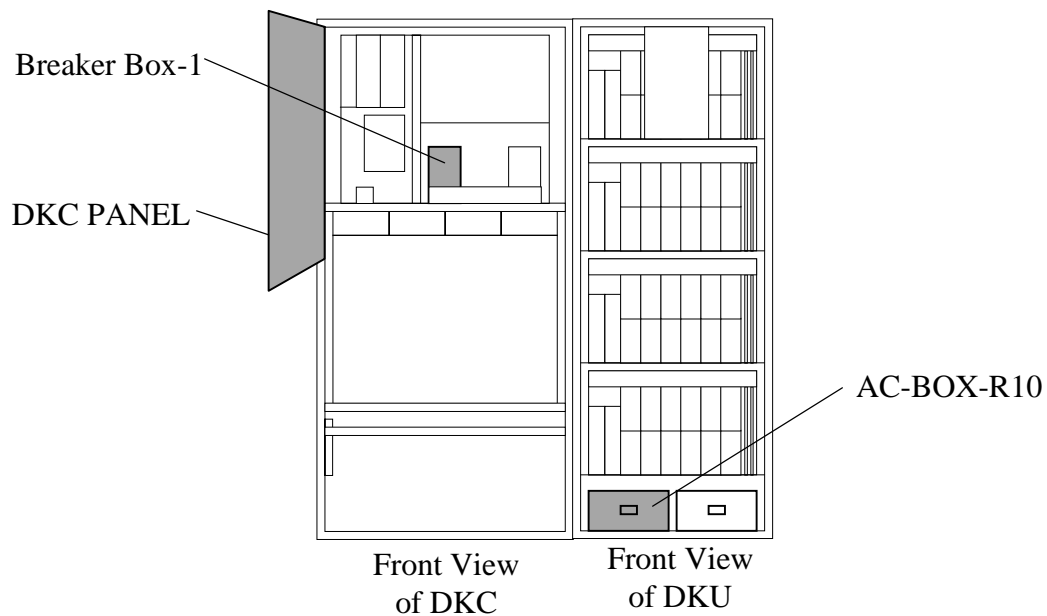
1. Checking that the shut-down LED is turned on.
 - a. Check that the shut-down LED on the SSVP/HUB PCB in the rear PS box is turned on.
2. Replacing the SSVP/HUB PCB.
 - a. Loosen the screw and remove the SSVP/HUB PCB.
 - b. Replace the SSVP/HUB PCB with a spare SSVP/HUB PCB.
 - c. Inset the SSVP/HUB PCB and fix it with the screw.



3. Go to SVP post procedure t1 [\[REP04-320\]](#).

[HARDWARE T9]

Location	Function Name of Component		Part Name
Rear PS Box in DKC	1	Breaker Box	• Breaker Box-1
(Reference) The related PCB for replacement of Breaker Box-1. 1. AC BOX-R10 (Lower left front of R1 DKU) 2. DKC Panel PCB (Front of DKC)			

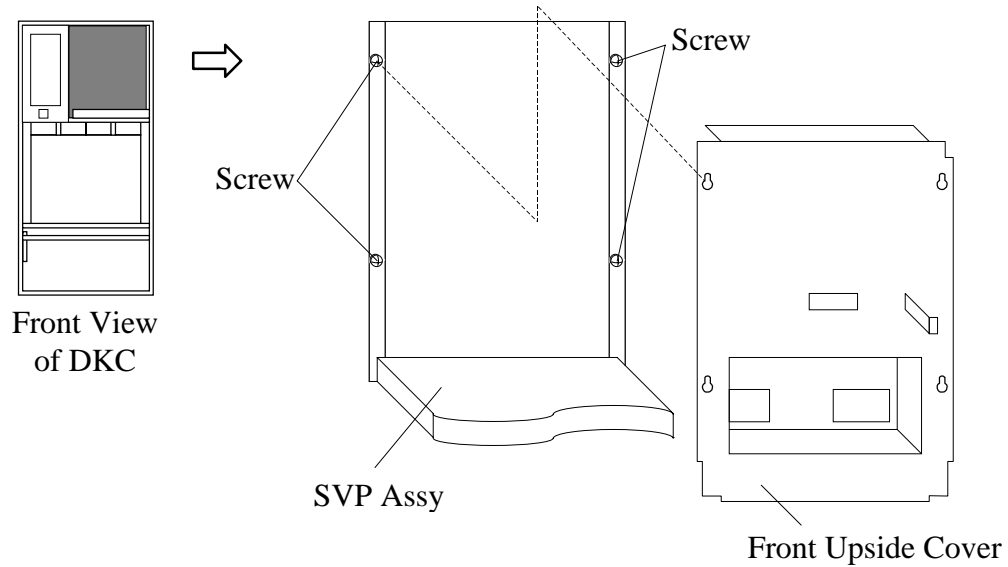


NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of Breaker Box-1

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.



3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

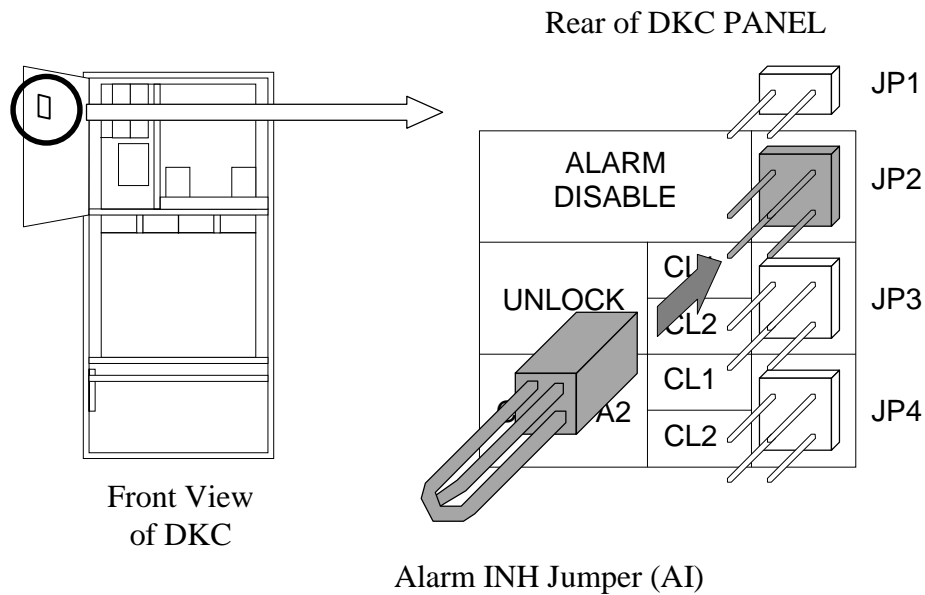


Fig. T9-1 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T9-1 Circuit Breakers to be Turned Off When Replacing Breaker Box-1

No.	Unit	Location No.	Breaker No.	Model	Remarks
1	DKC	Breaker Box-1	CB201	common	
2 ^{*1}	R1 DKU	AC BOX-R10	CB101	3 Phase	Failure to turn off may result in an electric shock.
	DKC	AC BOX-C1	CP200	Single Phase	

*1 : The location of AC-BOX connected with Breaker Box-1 with 3 phase model and single phase model is different.

- a. Turn off the circuit breaker (CB201) on the Breaker Box in the Disk Controller.

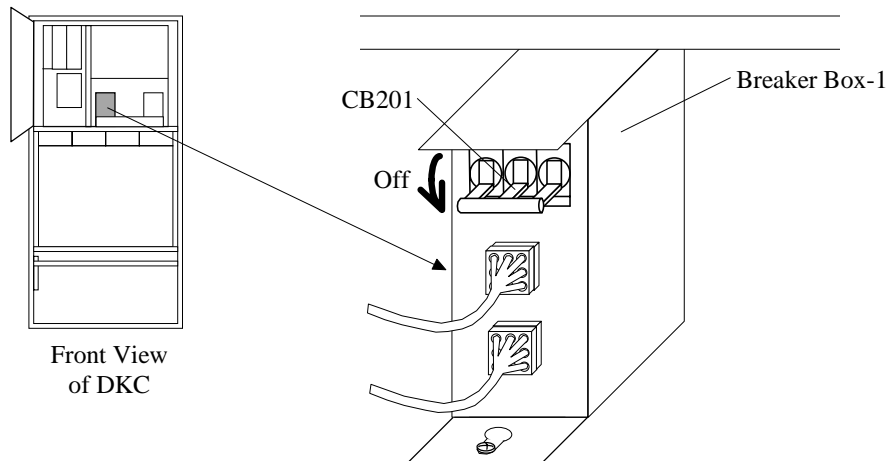


Fig. T9-2 Circuit Breakers to be Turned Off When Replacing Breaker Box-1

- b. Turn off the circuit breakers.

! WARNING

Warning : You will get an electric shock if you fail to turn it off.
Start your work after turning off the AC BOX-R10 or AC BOX-C1 circuit breaker.

b-1. 3 phase model

Turn off the circuit breakers (CB101) on AC BOX-R10 in the First Disk Unit.

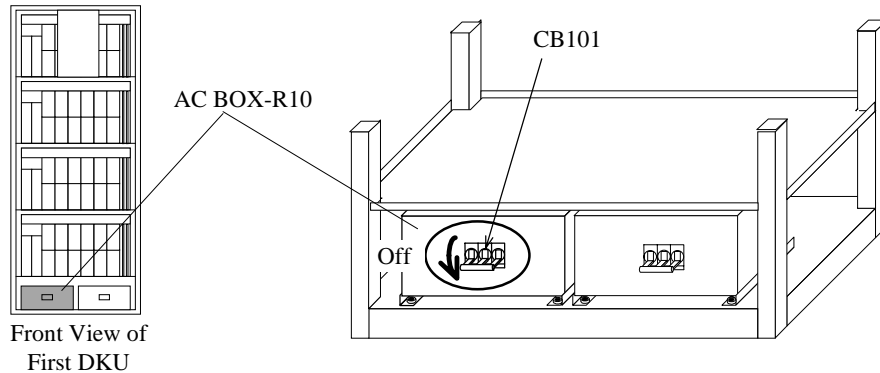


Fig. T9-3A Circuit Breakers to be Turned Off When Replacing Breaker Box-1

b-2. Single phase model

Turn off the circuit breakers (CB200) on AC BOX-C1 in the Disk Controller.

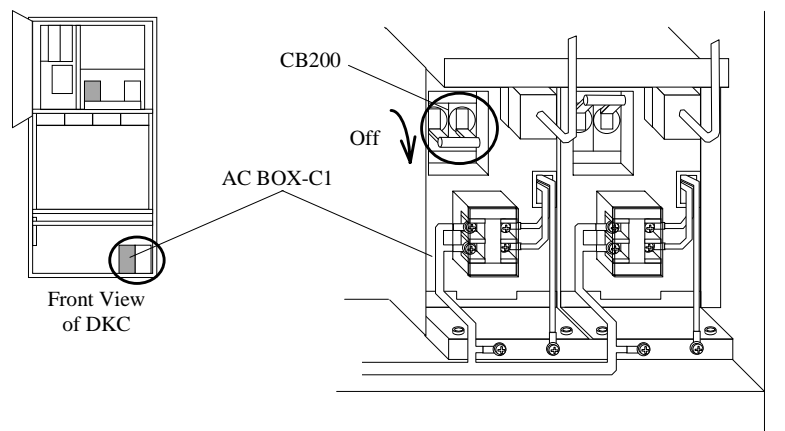


Fig. T9-3B Circuit Breakers to be Turned Off When Replacing Breaker Box-1

5. Breaker Box Removal



WARNING

Be Careful of Electric Shock

- Be sure to turn off the circuit breaker of AC BOX-R10 before operation.

- Disconnect the connectors from Breaker Box-1.
- Loosen the screw and remove Breaker Box-1.

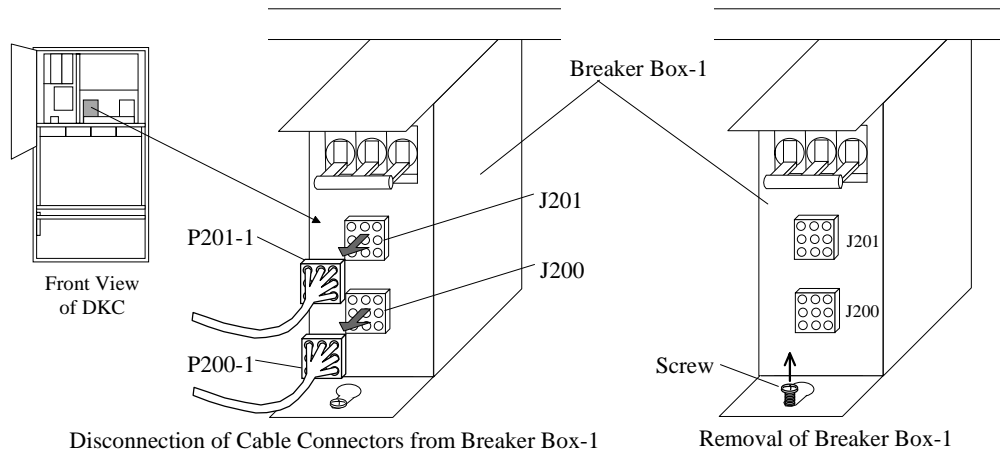


Fig. T9-4 Removal of Breaker Box-1

6. Spare Breaker Box Attachment

- Turn off the circuit breaker (CB201) on the spare Breaker Box.
- Attach the spare Breaker Box. Secure the Breaker Box with the screw.
- Connect the connectors.

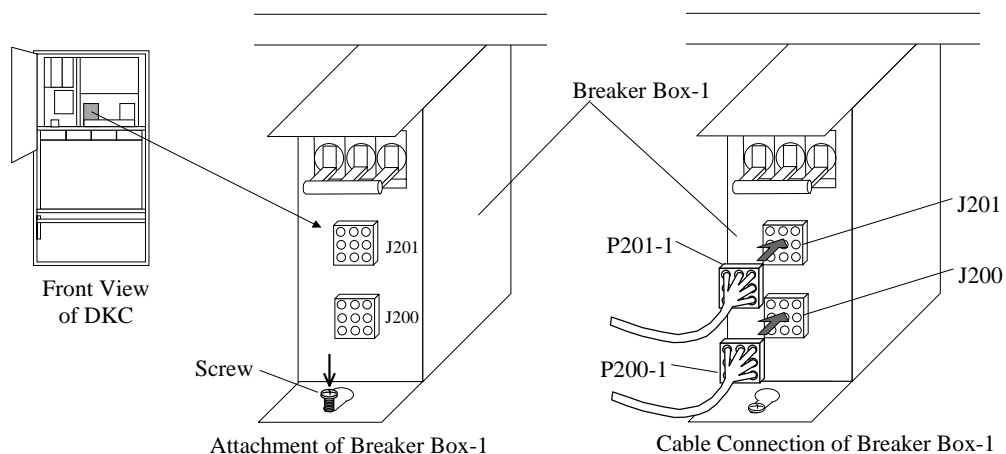


Fig. T9-5 Attachment of Breaker Box-1

- Attach the Front Upside Cover.

7. Powering On the Replacement Component

- Turn on all the circuit breakers in the reverse order of powering off. Refer to Table T9-1.
- Turn “LED TEST/CHK RST” switch in DKC panel to “CHK RST”.

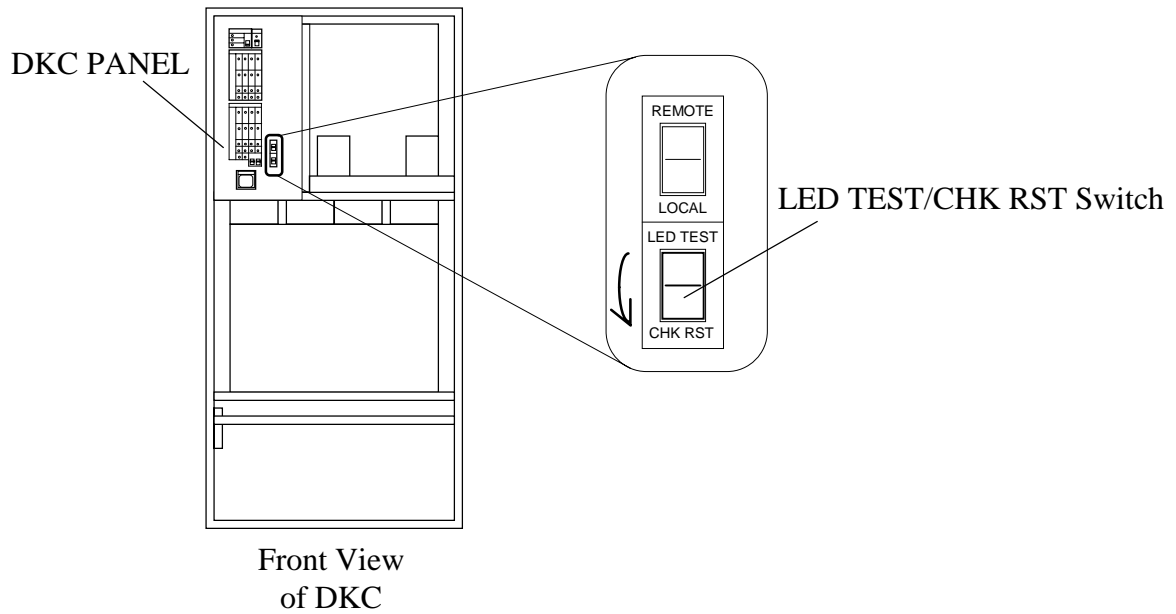


Fig. T9-6 Setting of IND TEST/CHK RST Switch

8. Disconnection of the Jumper

- Disconnect the Alarm INH Jumper from the connector on the DKC Panel.

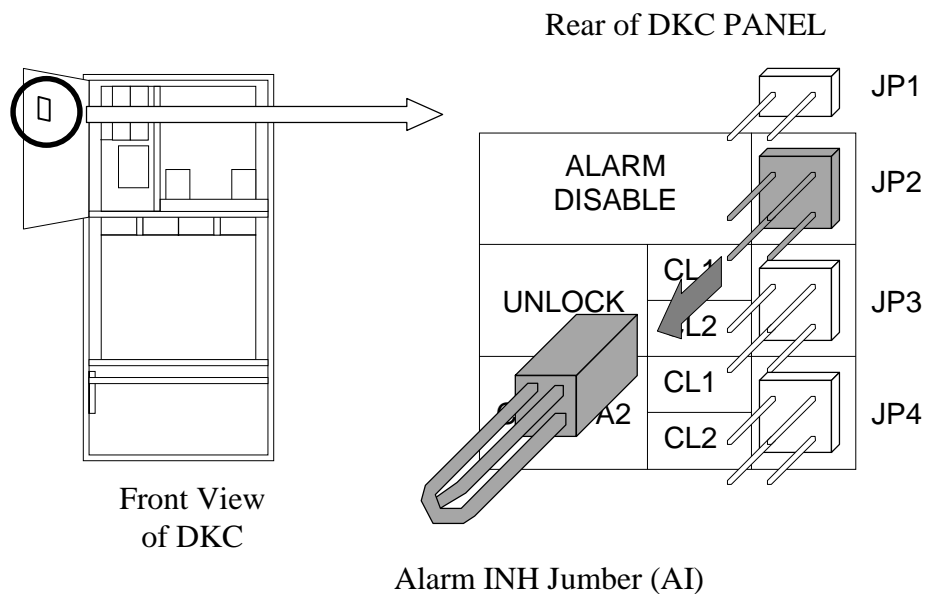
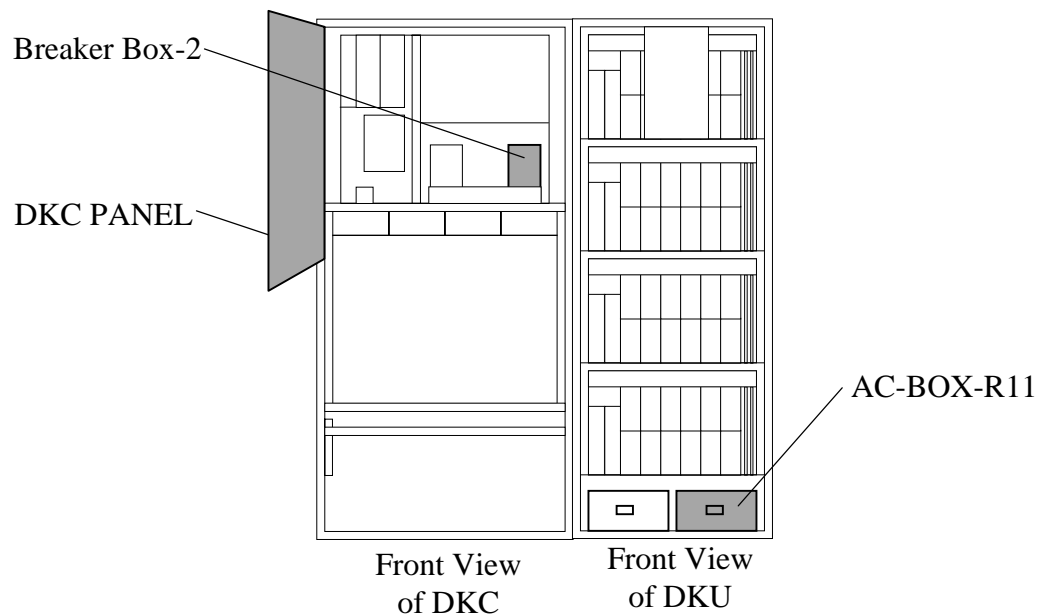


Fig. T9-7 Disconnection of Jumper

9. Go to SVP post procedure t3 [\[REP04-570\]](#).

[HARDWARE T10]

Location	Function Name of Component		Part Name
Rear PS Box in DKC	1	Breaker Box	• Breaker Box-2
(Reference) The related PCB for replacement of Breaker Box-2. 1. AC BOX-R11 (Lower left front of R1 DKU) 2. DKC Panel PCB (Front of DKC)			

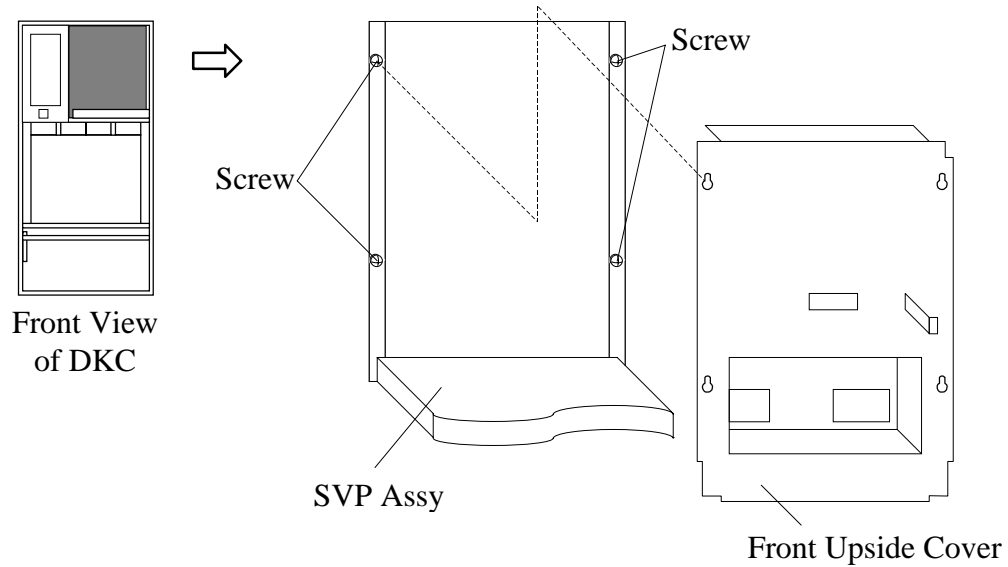


NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of Breaker Box-2

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.



3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

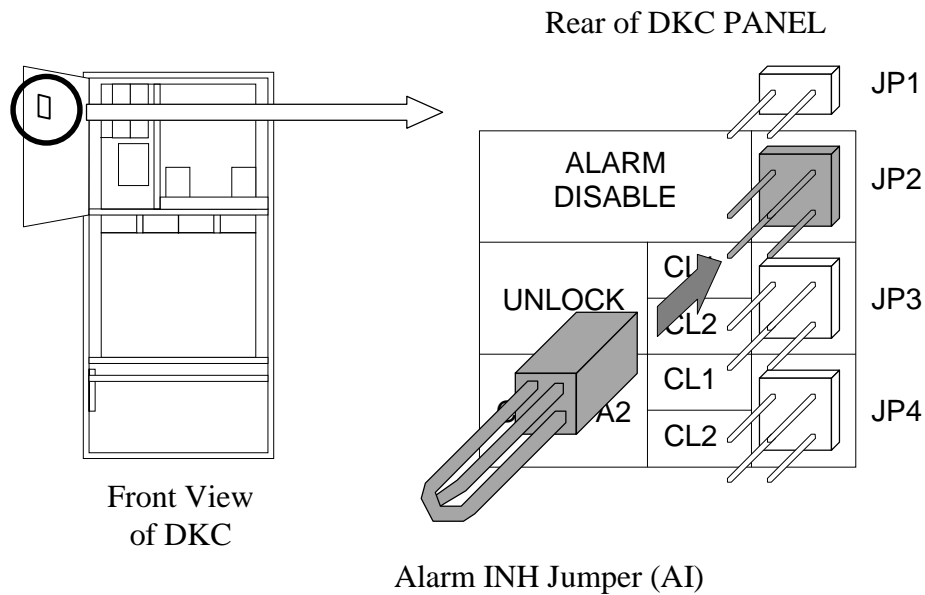


Fig. T10-1 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T10-1 Circuit Breakers to be Turned Off When Replacing Breaker Box-2

No.	Unit	Location No.	Breaker No.	Model	Remarks
1	DKC	Breaker Box-2	CB201	common	
2 ^{*1}	R1 DKU	AC BOX-R11	CB101	3 Phase	Failure to turn off may result in an electric shock.
	DKC	AC BOX-C2	CB200	Single Phase	

*1 : The location of AC-BOX connected with Breaker Box-2 with 3 phase model and single phase model is different.

- a. Turn off the circuit breaker (CB201) on the Breaker Box in the Disk Controller.

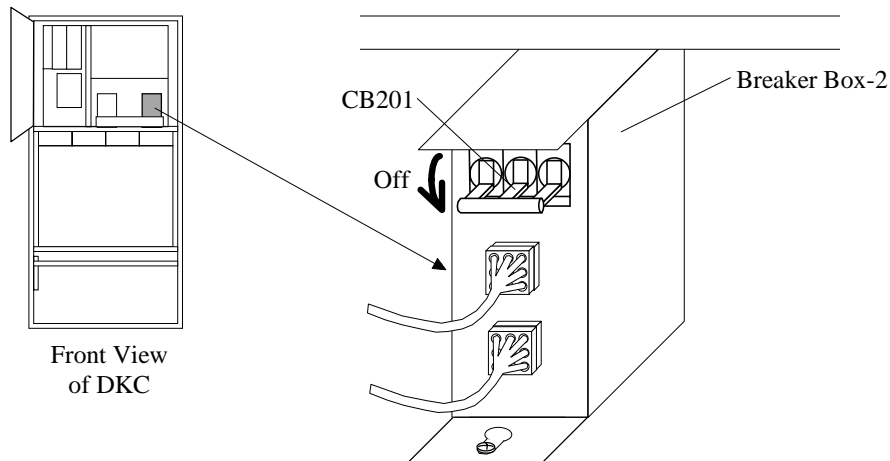


Fig. T10-2 Circuit Breakers to be Turned Off When Replacing Breaker Box-2

- b. Turn off the circuit breakers.

! WARNING

Warning : You will get an electric shock if you fail to turn it off.
Start your work after turning off the AC BOX-R11 or AC BOX-C2 circuit breaker.

b-1. 3 phase model

Turn off the circuit breakers (CB101) on AC BOX-R11 in the First Disk Unit.

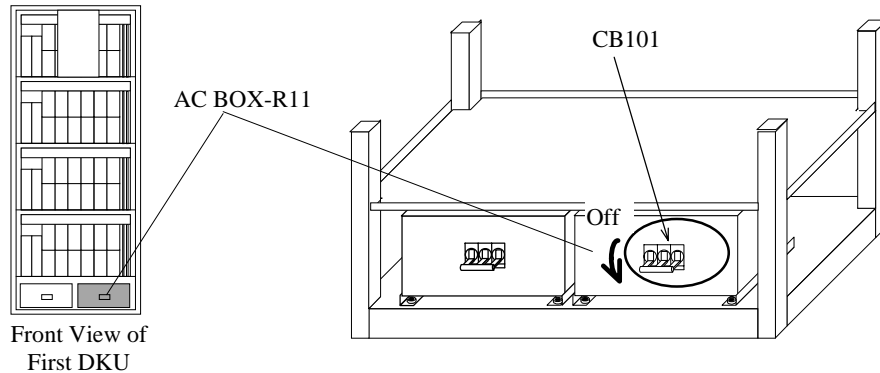


Fig. T10-3A Circuit Breakers to be Turned Off When Replacing Breaker Box-2

b-2. Single phase model

Turn off the circuit breakers (CB200) on AC BOX-C2 in the Disk Controller.

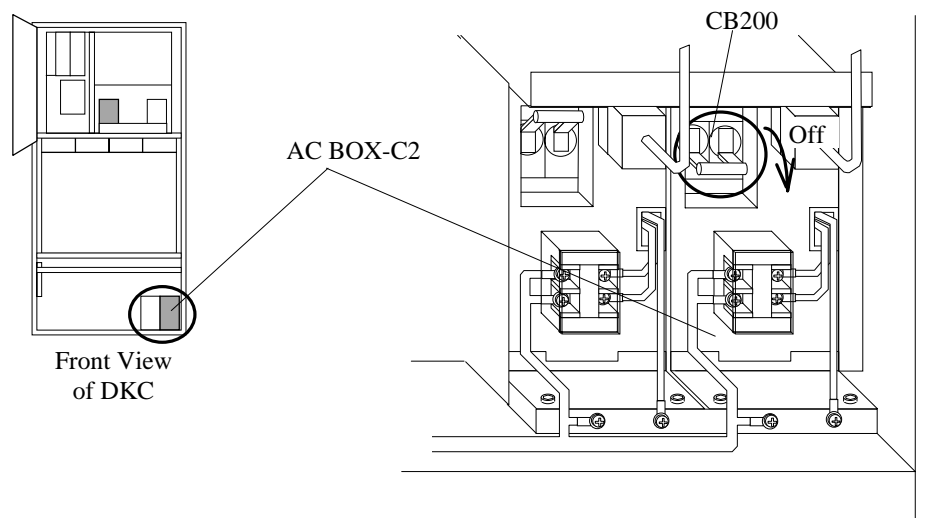


Fig. T10-3B Circuit Breakers to be Turned Off When Replacing Breaker Box-2

5. Breaker Box Removal



WARNING

Be Careful of Electric Shock

- Be sure to turn off the circuit breaker of AC BOX-R11 before operation.

- Disconnect the connectors from Breaker Box-2.
- Loosen the screw and remove Breaker Box-2.

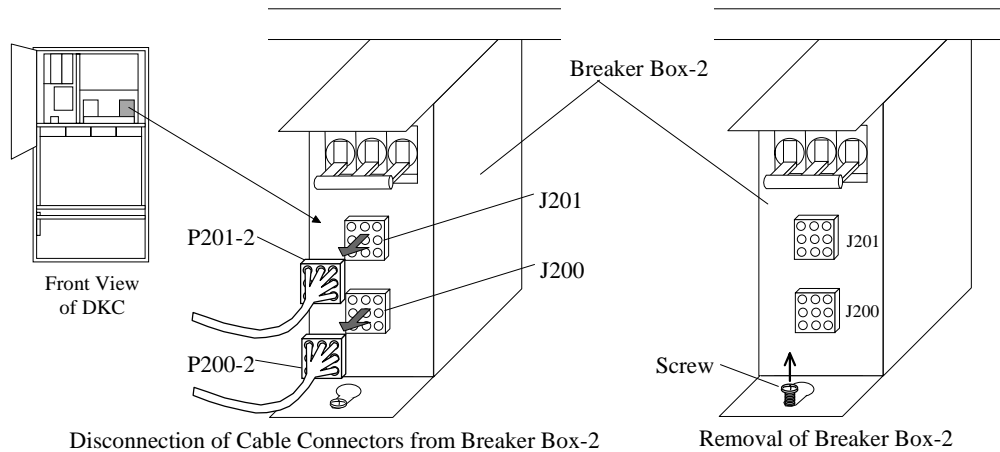


Fig. T10-4 Removal of Breaker Box-2

6. Spare Breaker Box Attachment

- Turn off the circuit breaker (CB201) on the spare Breaker Box.
- Attach the spare Breaker Box. Secure the Breaker Box with the screw.
- Connect the connectors.

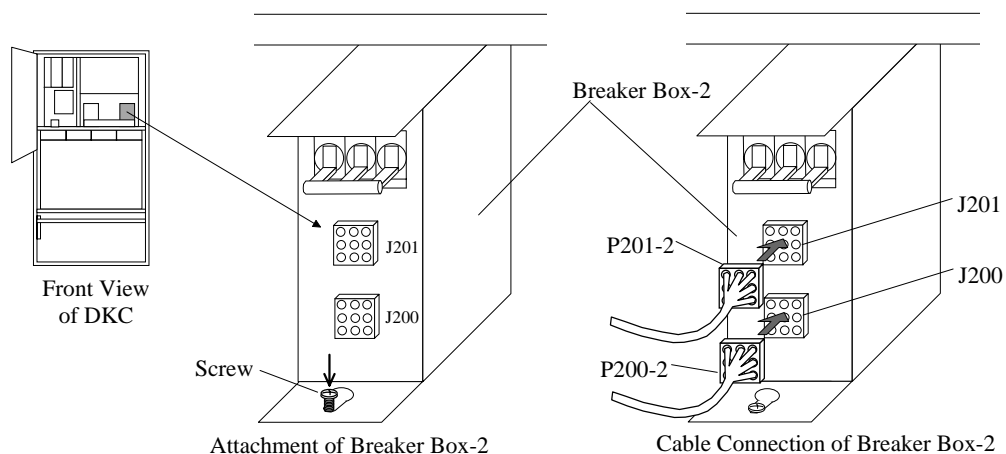


Fig. T10-5 Attachment of Breaker Box-2

- Attach the Front Upside Cover.

7. Powering On the Replacement Component

- Turn on all the circuit breakers in the reverse order of powering off. Refer to Table T10-1.
- Turn “LED TEST/CHK RST” switch in DKC panel to “CHK RST”.

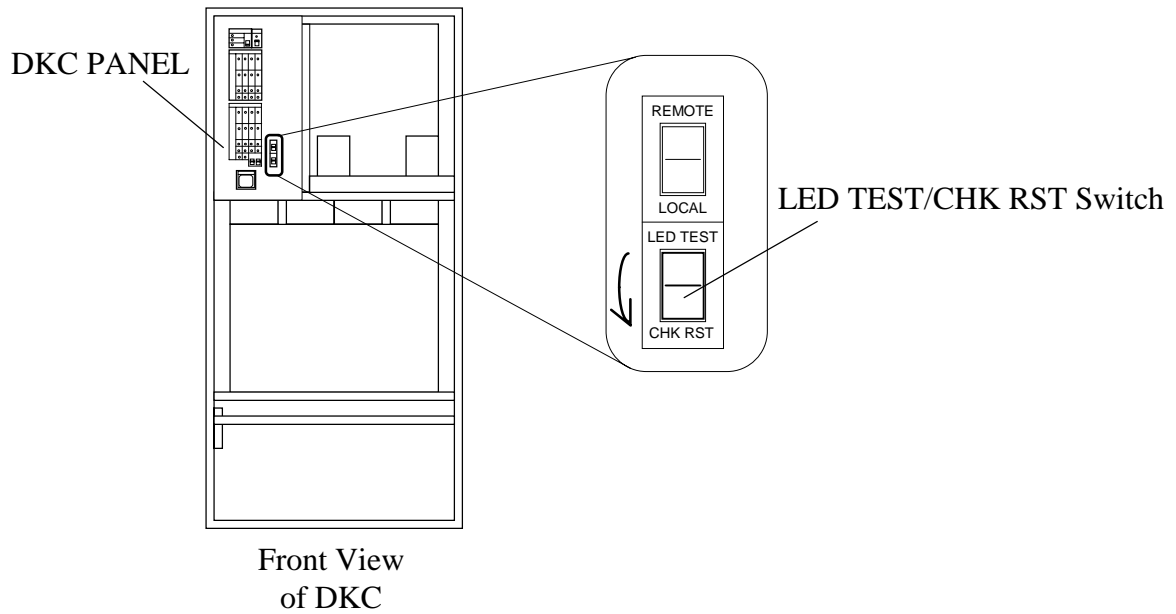


Fig. T10-6 Setting of IND TEST/CHK RST Switch

8. Disconnection of the Jumper

- Disconnect the Alarm INH Jumper from the connector on the DKC Panel.

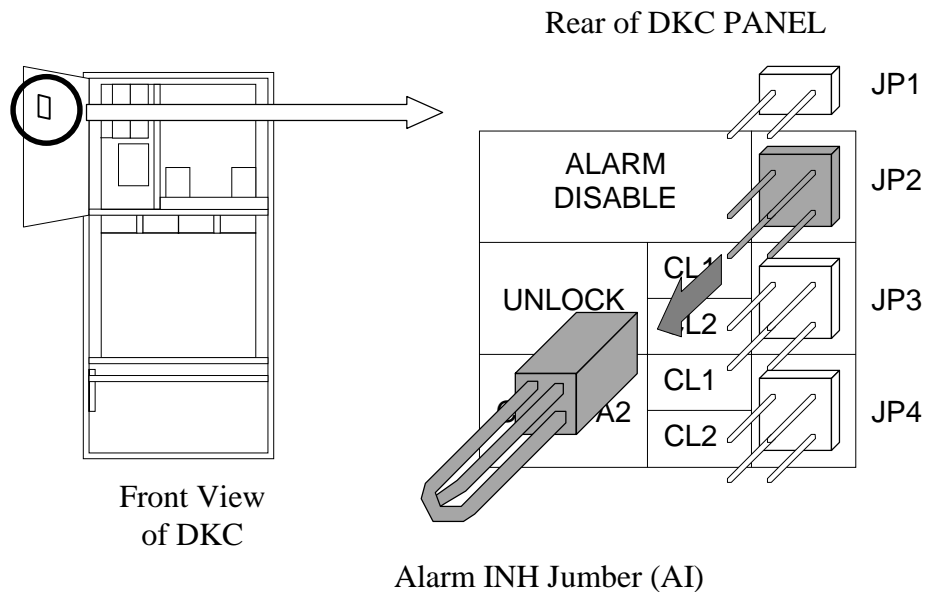
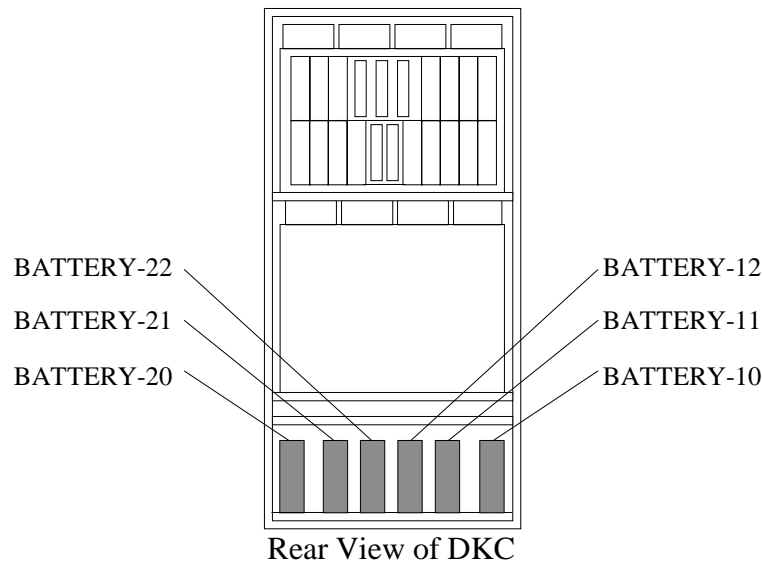


Fig. T10-7 Disconnection of Jumper

9. Go to SVP post procedure t3 [\[REP04-570\]](#).

[HARDWARE T11]

Location	Function Name of Component		Part Name
Lower front of DKC	1	BATTERY BOX	<ul style="list-style-type: none"> • BATTERY-10 (CL1 Shared Memory) • BATTERY-11 (CL1 Cache Memory) • BATTERY-12 (CL1 Cache Memory) • BATTERY-20 (CL2 Shared Memory) • BATTERY-21 (CL2 Cache Memory) • BATTERY-22 (CL2 Cache Memory)



NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

BATTERY BOX

CAUTION

The weight of the battery box is 14 kg. When you handle it, be sure to hold the grip at the front and rear sides by both hands firmly.

Paying attention to falls:

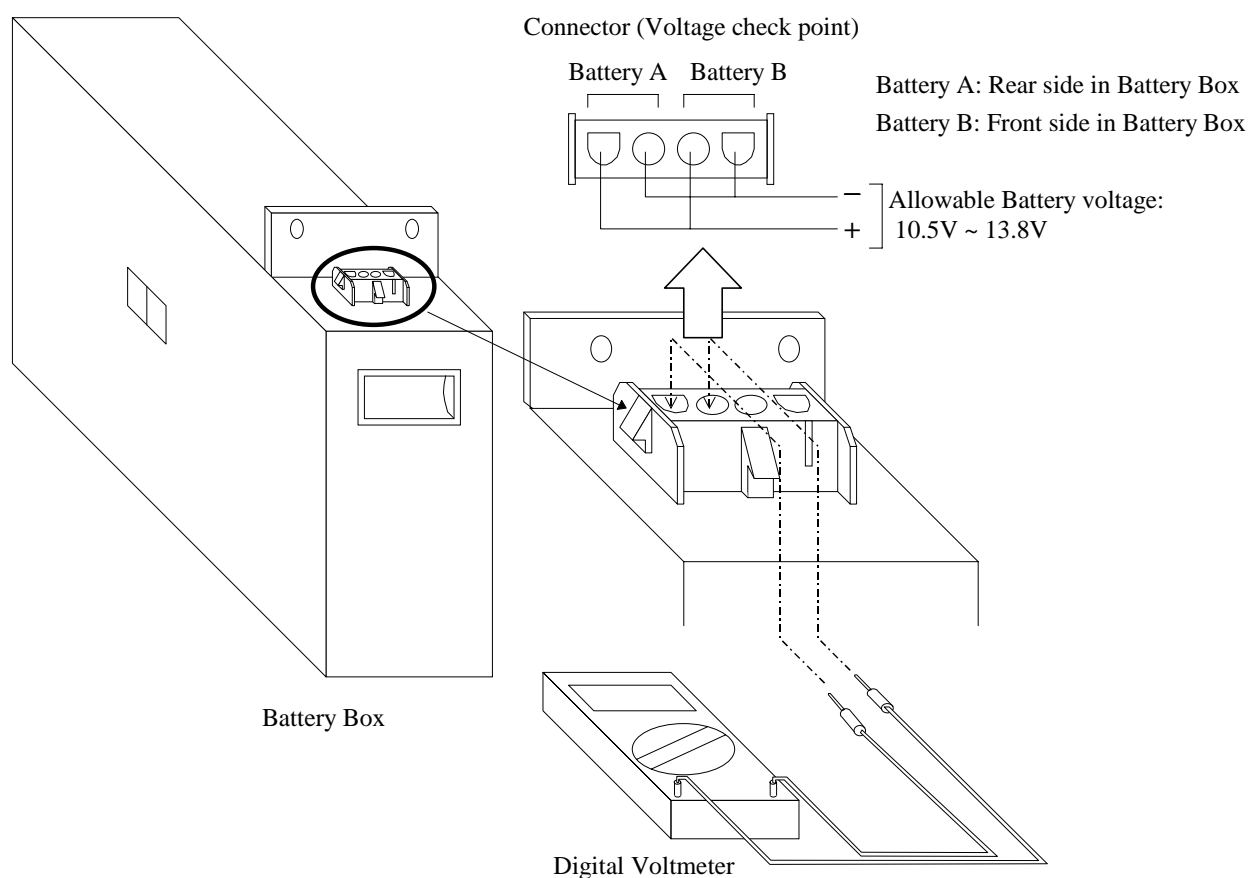
If the battery box falls, injury may occur. Hold the battery box firmly by both hands and use caution to prevent it from falling.

Watching for short-circuits:

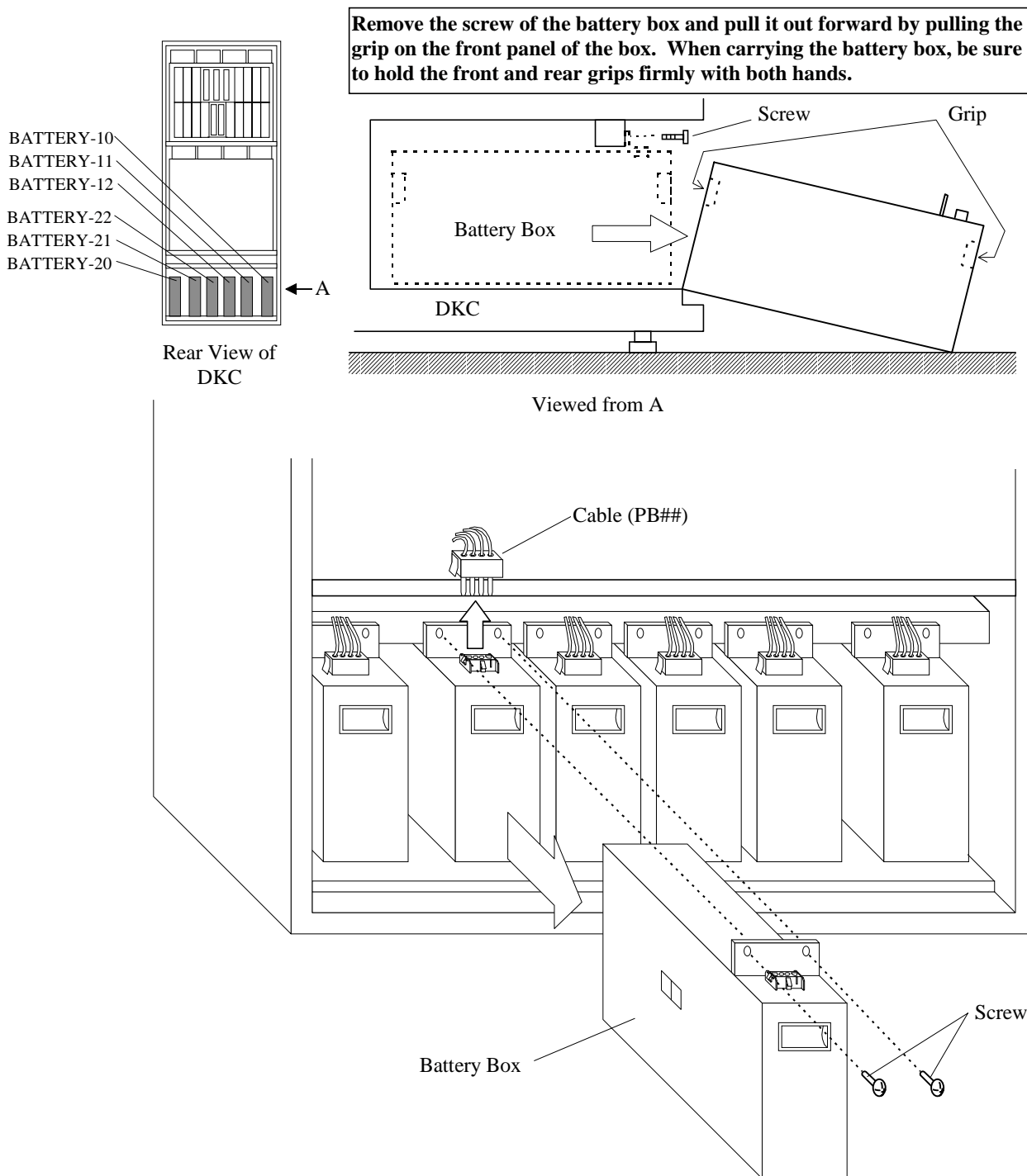
A Short-circuit may cause a fire.

Never insert metal or the like into the battery box connector or a short-circuit may occur.

1. Insert the pins of the digital voltmeter into the Connectors on the spare part to make sure that battery voltage is within the allowable voltage.



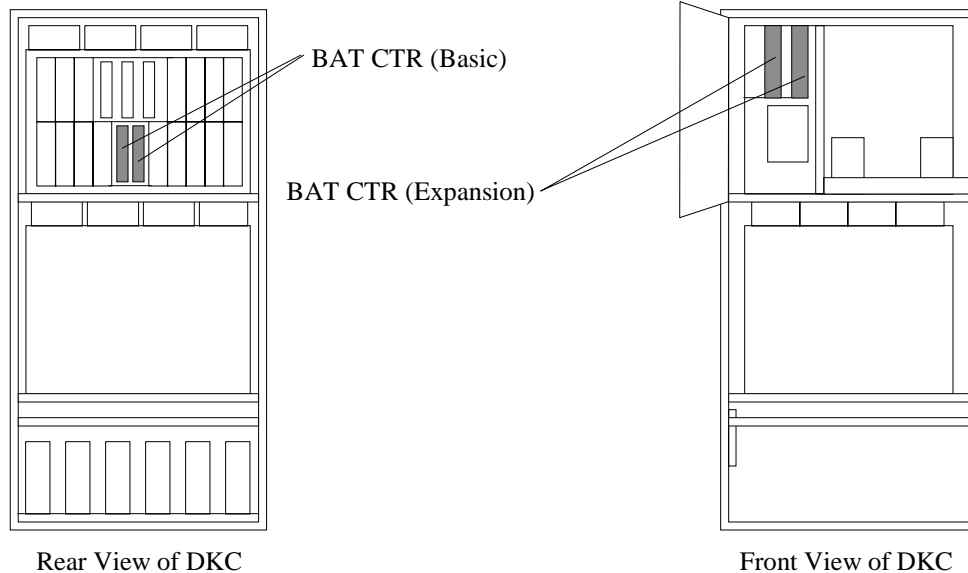
2. Replacing the battery box.
 - a. Remove the cable connected to the battery box you intend to remove.
 - b. Loosen the screw and remove the battery box.
 - c. Insert the spare battery box and tighten with the screw.
 - d. Connect the cable to the battery box.



3. Go to SVP post procedure t3 [\[REP04-570\]](#).

[HARDWARE T12]

Location	Function Name of Component			Part Name
Rear PS Box	1	BAT CTR (Battery Control) PCB (Basic)	BATCTR-10 BATCTR-20	• SH200-A
Front BAT CTR Box	2	BAT CTR (Battery Control) PCB (Expansion)	BATCTR-11 BATCTR-21	• SH199-A

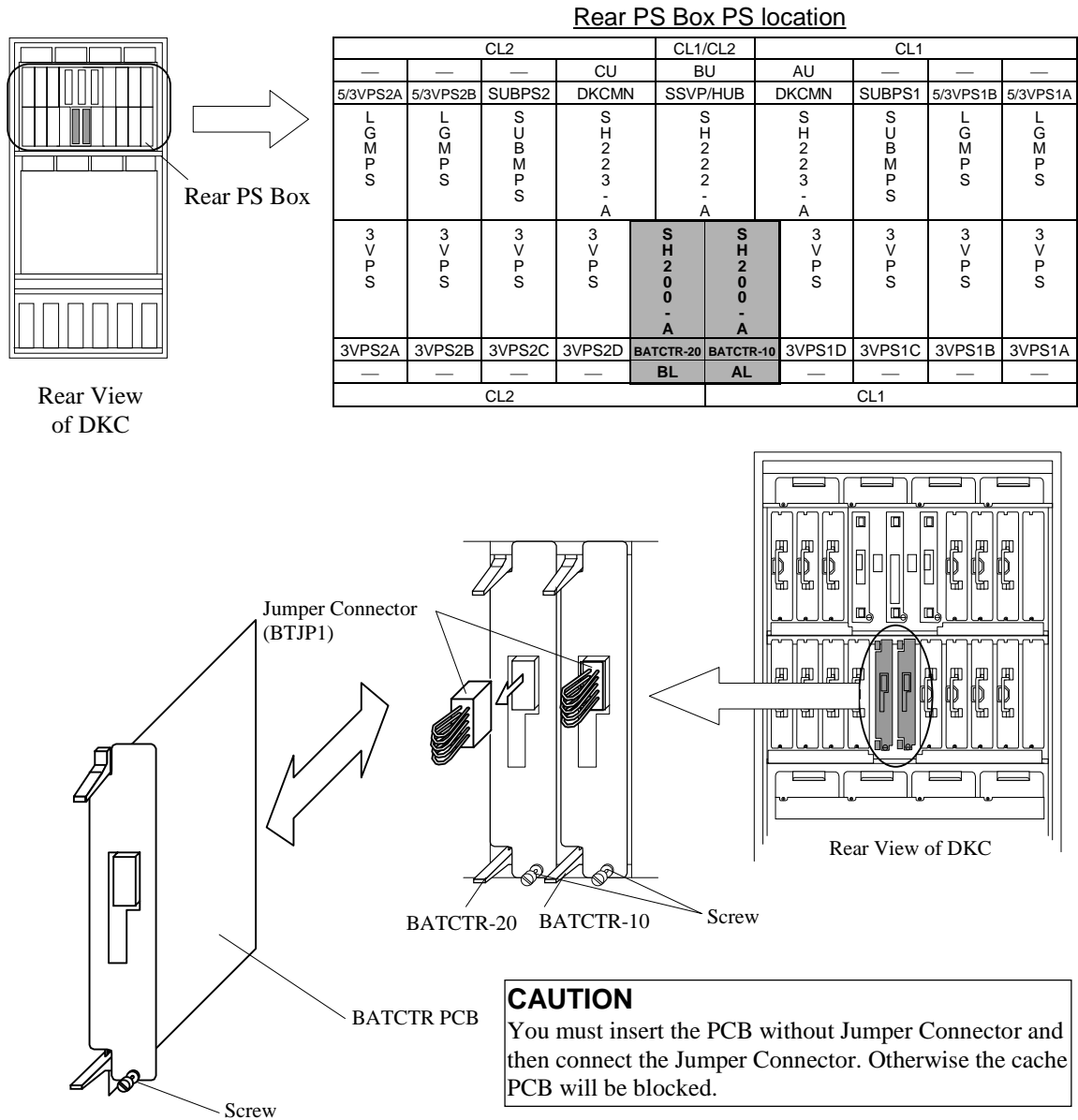


NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

BAT CTR PCB (Basic)

1. Replacing the BAT CTR PCB (for basic).
 - a. Remove the jumper connector connected to the BAT CTR PCB you intend to remove.
 - b. Loosen the screw and remove the BAT CTR PCB.
 - c. Replace the BAT CTR PCB with a spare BAT CTR PCB. Don't connect the Jumper Connector before insertion of the PCB.
 - d. Insert the spare BAT CTR PCB and tighten with the screw. Then, insert the jumper connector removed in step 'a' described above.



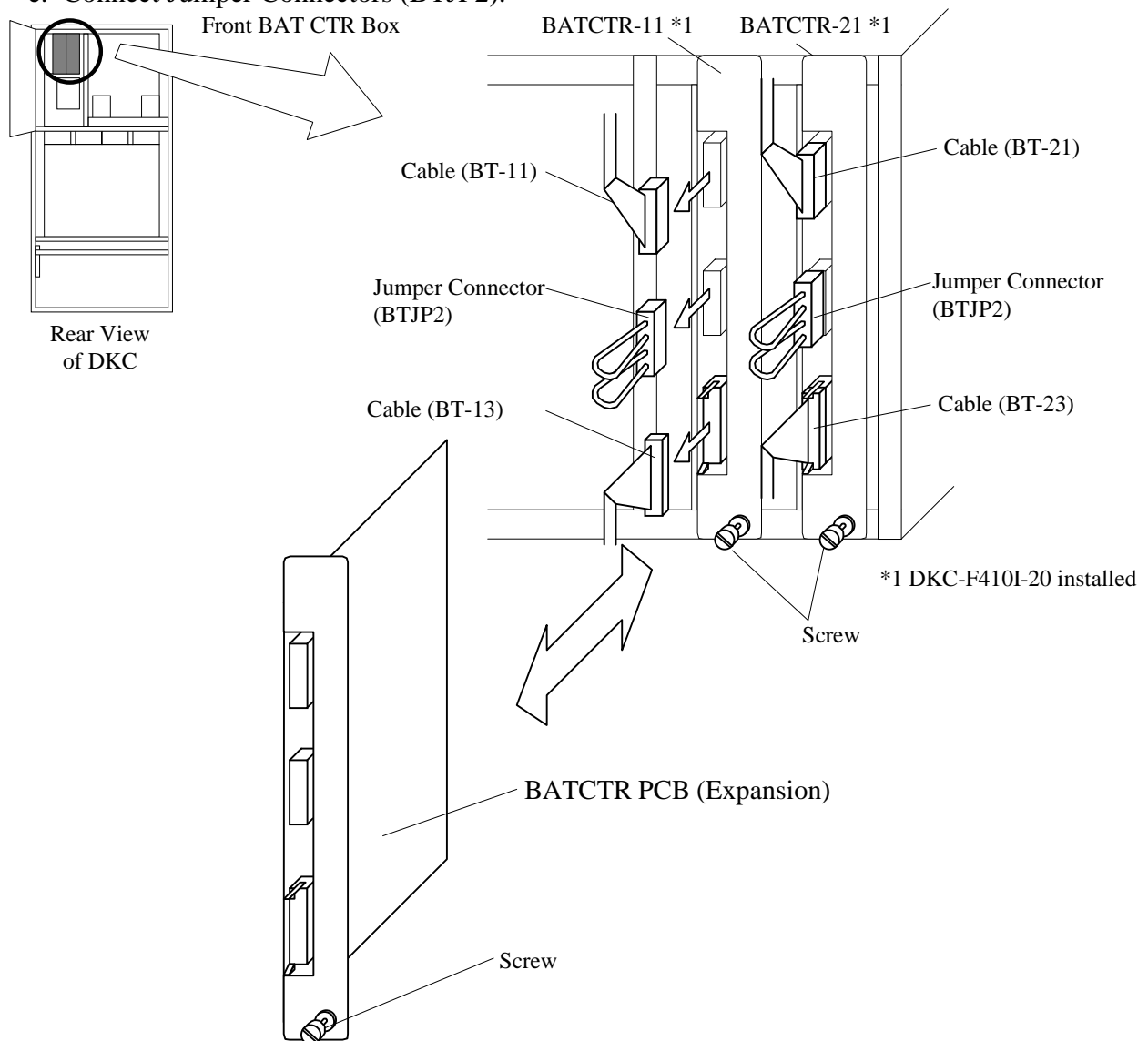
2. Go to SVP post procedure t3 [\[REP04-570\]](#).

BAT CTR PCB (Expansion)

! CAUTION

You must remove or insert the Connectors and Jumper in the Correct order.
Otherwise the cache PCB will be blocked.

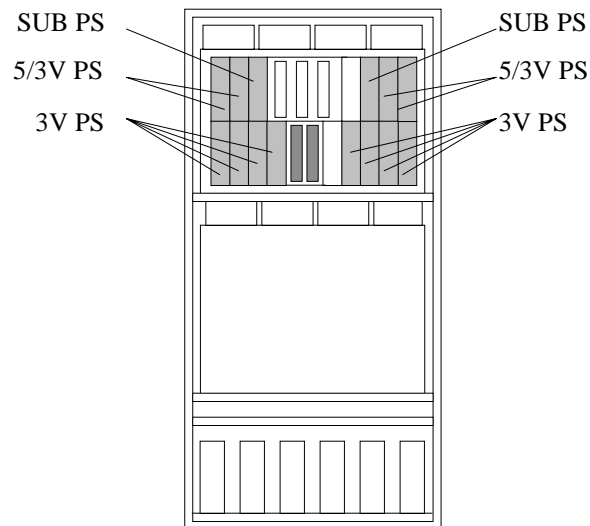
1. Replacing the BAT CTR PCB (for expansion).
 - a. Remove the Cables (BT-11, BT-13 or BT-21, BT-23) and then remove the Jumper Connector (BTJP2).
 - b. Loosen the screw and remove the BAT CTR PCB.
 - c. Replace the BAT CTR PCB with a spare BAT CTR PCB.
 - d. Insert the spare BAT CTR PCB and tighten with the screw. Insert the Cables (BT-11, BT-21) and Cables (BT-13, BT-23).
 - e. Connect Jumper Connectors (BTJP2).



2. Go to SVP post procedure t3 [\[REP04-570\]](#).

[HARDWARE T13]

Location	Function Name of Component		Part Name
Rear PS Box in DKC	1	3V Power Supply	<ul style="list-style-type: none">• PPD03080• TAJ-272HS
	2	5/3V Power Supply	<ul style="list-style-type: none">• PPD4002-1• TAH-354HS
	3	SUB Power Supply	<ul style="list-style-type: none">• TAH-393HS



Rear View of DKC

Replacement of Power Supply

1. The following figure shows the correct way to replace the power supply (PS).
 - a. Set PS Enable/Disable Switch① to Disable (DOWN).

CAUTION

A system down may be caused by setting the PS Enable/Disable switch of the power supply other than that to be replaced to “Disable”. Make sure that it is a power supply to be replaced.

- b. Remove the power supply lever② and disconnect the inlet cable③.
- c. Loosen the screw④ and remove the failed PS.
- d. Perform the short circuit check on the spare power supply. (Refer to [REP03-690](#).)
- e. Confirm that PS Enable/Disable Switch① of spare PS is set to Disable (DOWN)
- f. Insert the spare PS and fasten the screw④.
- g. Connect the inlet cable③ and secure it with the lever②.
- h. Set PS Enable/Disable Switch① to Enable (UP).

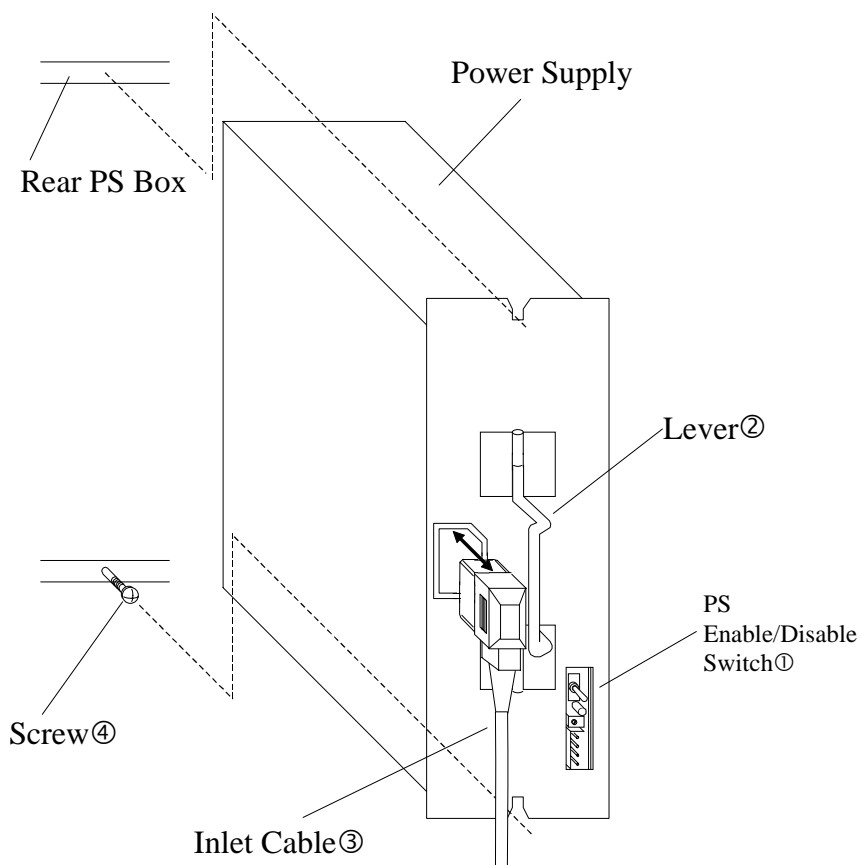


Fig. T13-1 Replacement of Power Supply

2. Go to SVP post procedure t3 [\[REP04-570\]](#).

Procedure for short circuit check on the power supply

- Check the power supply for short circuit by connecting the voltage checking jig to the short circuit check point of the power supply as shown below.
- Measure the resistance at the check points on the individual power supply before installation shown below. Confirm that the measured resistance values are over the value shown in the table below. If the resistance values are not over the value, replace it to the new part.

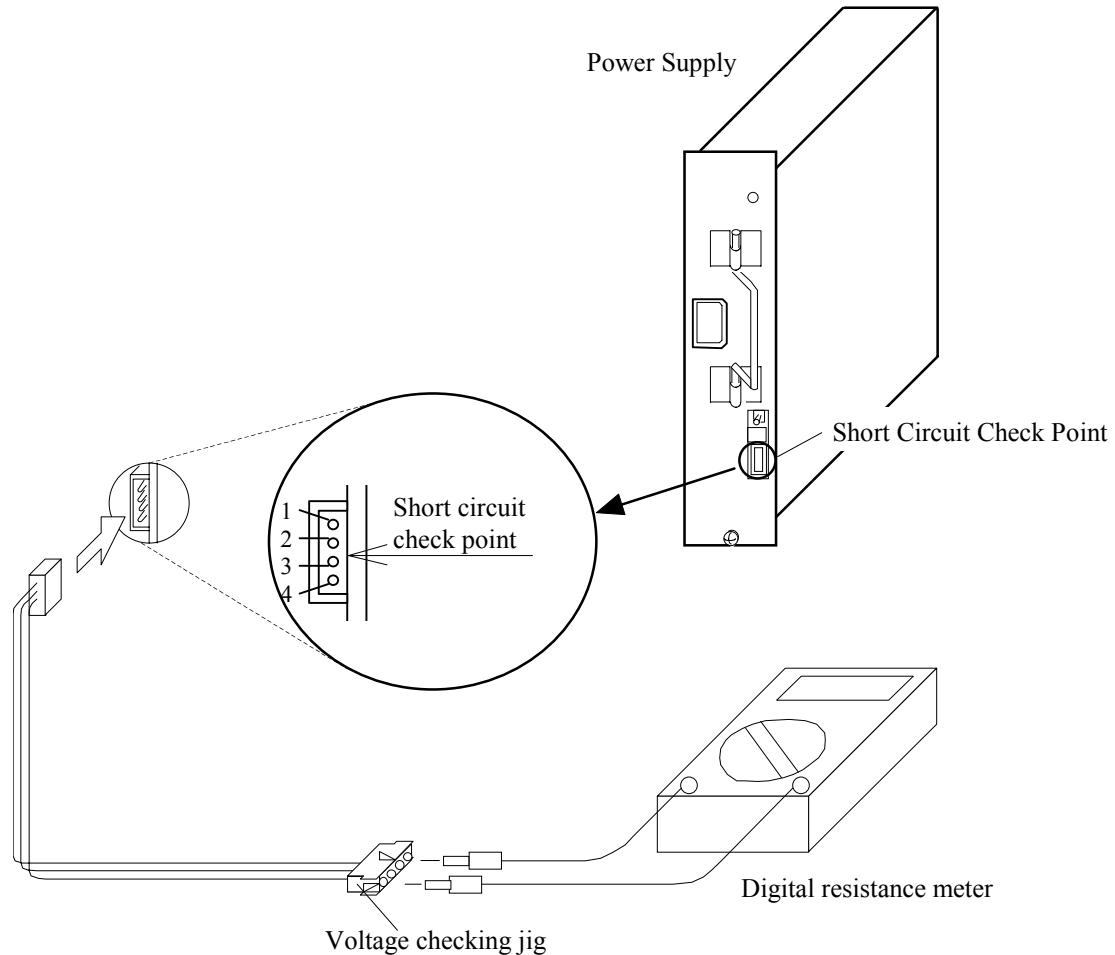


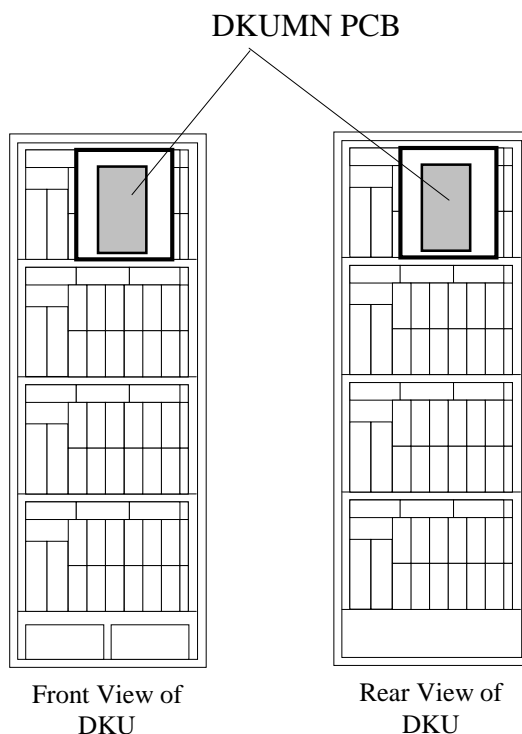
Fig. T13-2 Short Circuit Check Point

Table T13-1 Short Circuit Check Point

PS	Check pin	Resistance
3V PS	Between 1 and 4	1.7 k Ω
5/3V PS	Between 1 and 4	1.7 k Ω
	Between 2 and 4	1.7 k Ω
SUB PS	Between 1 and 4	1.7 k Ω
	Between 2 and 4	1.7 k Ω
	Between 3 and 4	1.7 k Ω

[HARDWARE T14]

Location	Function Name of Component		Part Name
Front or Rear upside of DKU	1	DKUMN (Monitor) PCB	• SH224-A

**NOTICE:**

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of DKUMN (Monitor) PCB

1. The following figure (Fig. T14-1) and table (Table T14-1) show the correct way to replace the DKUMN PCB.
 - a. Set the jumper socket of the spare DKUMN PCB to the same position as there of failed DKUMN PCB.
 - b. Set Enable/Disable Switch to Disable on the DKUMN PCB

CAUTION

A system down may be caused by setting the Enable/Disable switch of the DKUMN PCB other than that to be replaced to "Disable". Be sure that it is the DKUMN PCB to be replaced.

- c. Disconnect all cables.
- d. Remove the failed DKUMN PCB off the four latches.
- e. Set Enable/Disable Switch to Disable on the spare DKUMN PCB.
- f. Attach the spare PCB on the latches.
- g. Connect all the cables.
- h. Set Enable/Disable Switch to Enable on the DKUMN PCB.

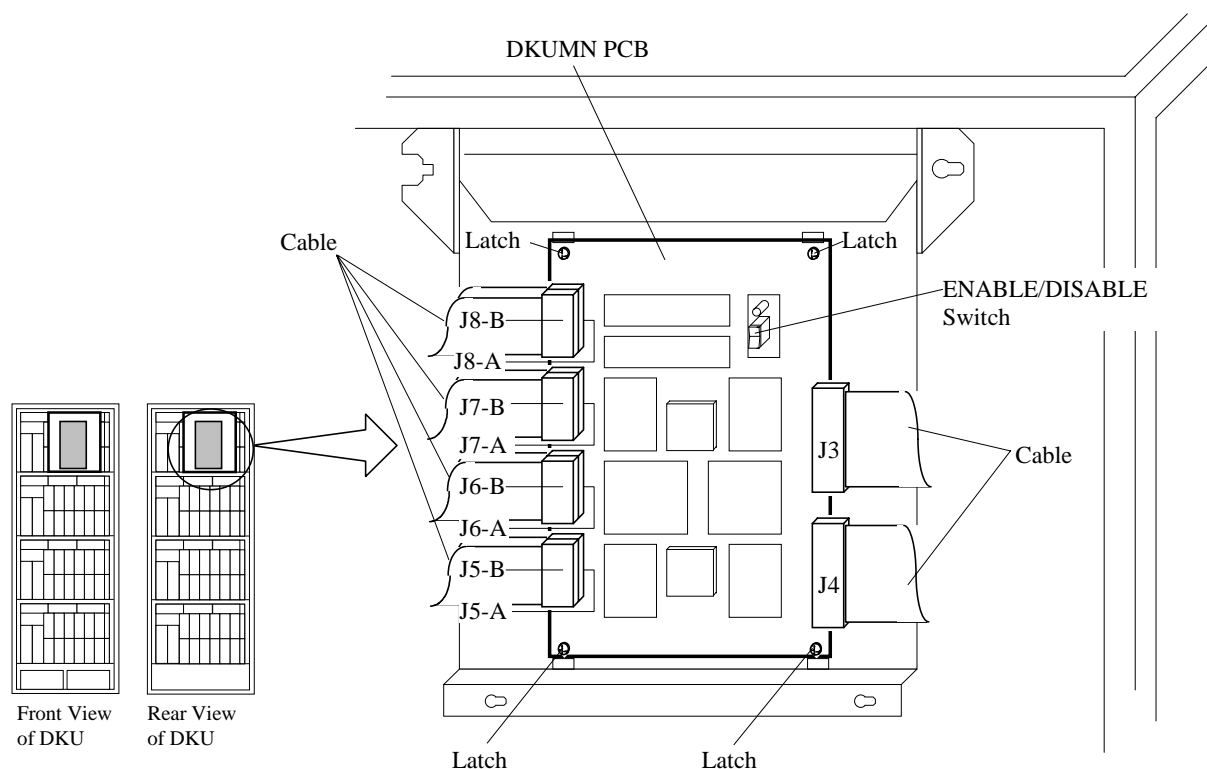


Fig. T14-1 Replacement of DKUMN PCB

Table 14-1 Connection of DKUMN PCB Cables (1/2)

No.	Connector No. of DKUMN	Connector No. of Cables					
		DKUMN- R1F	DKUMN- R1R	DKUMN- R2F	DKUMN- R2R	DKUMN- R3F	DKUMN- R3R
1	J3	P3-1	P3-2	P3-1	P3-2	—	—
2	J4	P4-1R	P4-2R	P4-1	P4-2	P4-1	P4-2
3	J5-A	P5A-1	P5A-2	P5A-1	P5A-2	P5A-1	P5A-2
4	J5-B	P5B-1	P5B-2	P5B-1	P5B-2	P5B-1	P5B-2
5	J6-A	P6A-1	P6A-2	P6A-1	P6A-2	P6A-1	P6A-2
6	J6-B	P6B-1	P6B-2	P6B-1	P6B-2	P6B-1	P6B-2
7	J7-A	P7A-1	P7A-2	P7A-1	P7A-2	P7A-1	P7A-2
8	J7-B	P7B-1	P7B-2	P7B-1	P7B-2	P7B-1	P7B-2
9	J8-A	P8A-1	P8A-2	P8A-1	P8A-2	P8A-1	P8A-2
10	J8-B	P8B-1	P8B-2	P8B-1	P8B-2	P8B-1	P8B-2

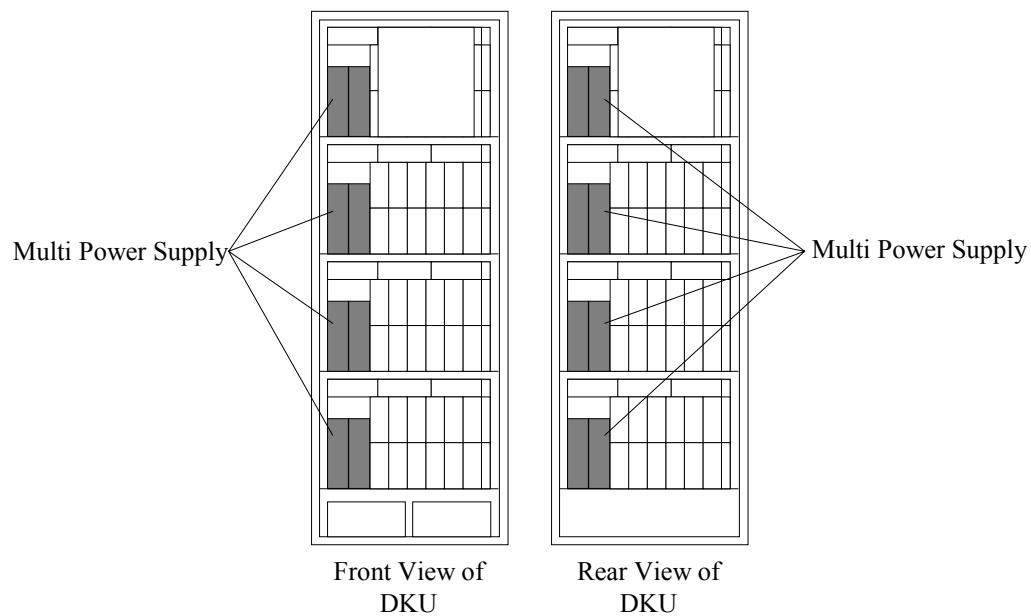
Table 14-1 Connection of DKUMN PCB Cables (2/2)

No.	Connector No. of DKUMN	Connector No. of Cables					
		DKUMN- L1F	DKUMN- L1R	DKUMN- L2F	DKUMN- L2R	DKUMN- L3F	DKUMN- L3R
1	J3	P3-1	P3-2	P3-1	P3-2	—	—
2	J4	P4-1L	P4-2L	P4-1	P4-2	P4-1	P4-2
3	J5-A	P5A-1	P5A-2	P5A-1	P5A-2	P5A-1	P5A-2
4	J5-B	P5B-1	P5B-2	P5B-1	P5B-2	P5B-1	P5B-2
5	J6-A	P6A-1	P6A-2	P6A-1	P6A-2	P6A-1	P6A-2
6	J6-B	P6B-1	P6B-2	P6B-1	P6B-2	P6B-1	P6B-2
7	J7-A	P7A-1	P7A-2	P7A-1	P7A-2	P7A-1	P7A-2
8	J7-B	P7B-1	P7B-2	P7B-1	P7B-2	P7B-1	P7B-2
9	J8-A	P8A-1	P8A-2	P8A-1	P8A-2	P8A-1	P8A-2
10	J8-B	P8B-1	P8B-2	P8B-1	P8B-2	P8B-1	P8B-2

3. Go to SVP post procedure t4 [\[REP04-610\]](#).

[HARDWARE T15]

Location	Function Name of Component		Part Name
Front or Rear of DKU	1	Multi Power Supply	<ul style="list-style-type: none"> • PPD5002 • TAJ-490HS • PS150



Replacement of Multi Power Supply

1. The following figure shows the correct way to replace the multi power supply (MPS).
 - a. Set PS Enable/Disable Switch to Disable (DOWN).

CAUTION

A system down may be caused by setting the PS Enable/Disable switch of the power supply other than that to be replaced to "Disable". Make sure that it is a power supply to be replaced.

- b. Disconnect the inlet cable and remove the two screws①.
- c. Loosen the screw② and move up the rubber absorber.
- d. Remove the multi power supply (MPS).
- e. Perform the short circuit check on the spare power supply. (Refer to [REP03-750](#).)
- f. Confirm that PS Enable/Disable Switch of the spare PS is set to Disable (DOWN).
- g. With the rubber absorber set down, insert the spare PS. Shock caused by the insertion is absorbed by the rubber absorber.
- h. With the rubber absorber set up, push the MPS into the HDU box until secure. Then lower rubber absorber and secure it with the screw②.
- i. Secure the MPS with the two screws① and connect the inlet cable.
- j. Set PS Enable/Disable Switch to Enable (UP).

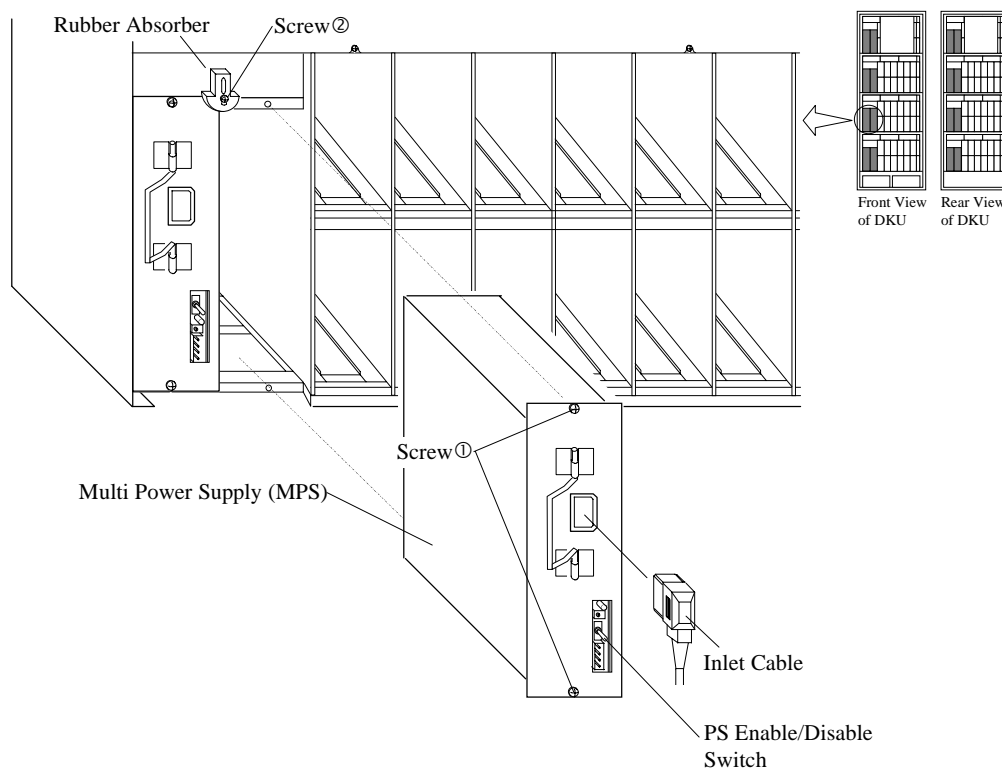


Fig. T15-1 Replacement of Multi Power Supply

3. Go to SVP post procedure t4 [\[REP04-610\]](#).

Procedure for short circuit check on the power supply

- Check the power supply for short circuit by connecting the voltage checking jig to the short circuit check point of the power supply as shown below.
- Measure the resistance at the check points on the individual power supply before installation shown below. Confirm that the measured resistance values are over the value shown in the table below. If the resistance values are not over the value, replace it to the new part.

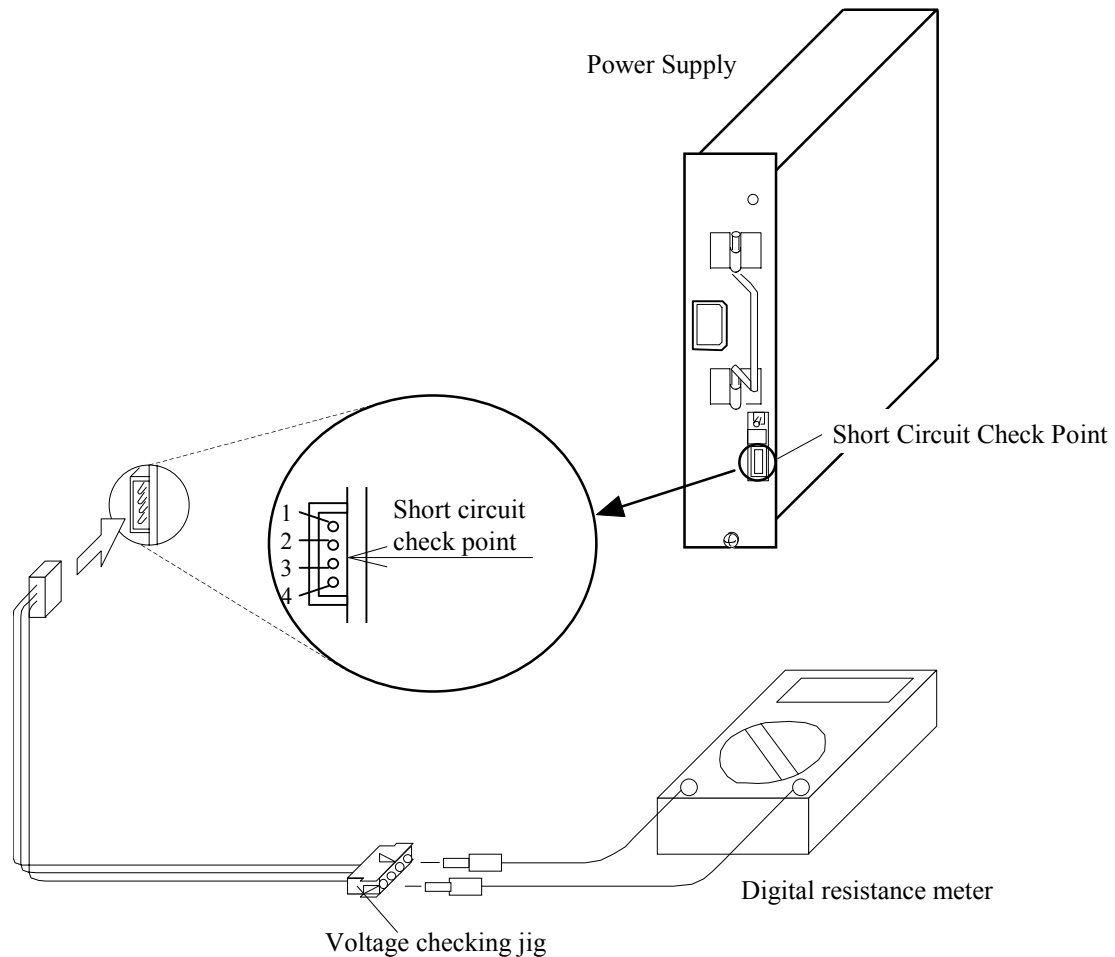


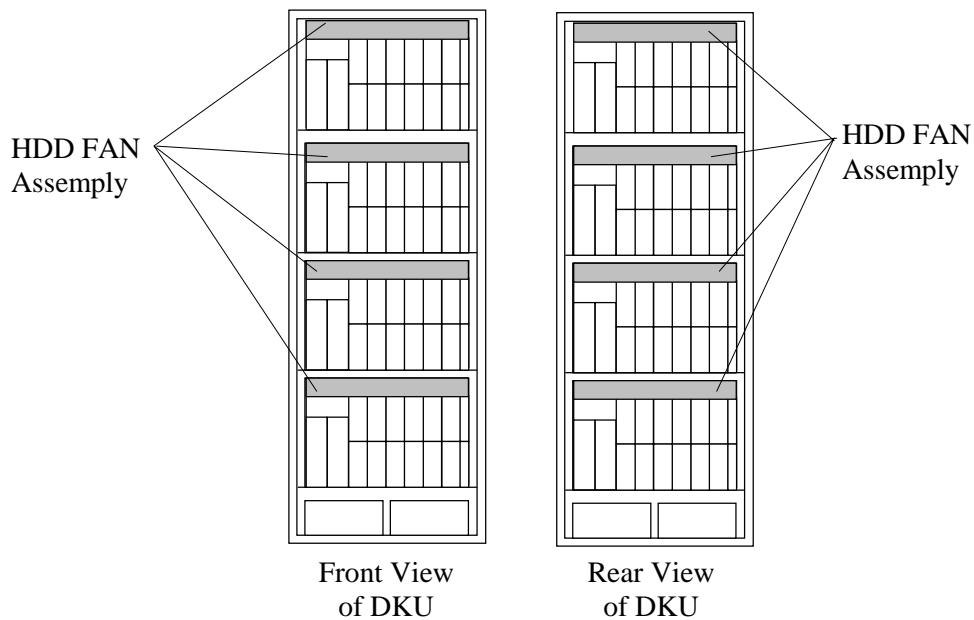
Fig. T15-2 Short Circuit Check Point

Table T15-1 Short Circuit Check Point

PS	Check pin	Resistance	
		TAJ-490HS	PPD5002
Multi PS	Between 1 and 4	1.7 k Ω	1.7 k Ω
	Between 2 and 4	1.7 k Ω	1.7 k Ω

[HARDWARE T16]

Location	Function Name of Component	
Top of HDD BOX	1	HDD FAN Assembly



NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of HDD FAN Assembly

! CAUTION

Hazardous rotating mechanism

Can cause injury if touched. Stay clear when machine is running.

1. When the FAN-##0, FAN-##1, FAN-##2 or FAN-##3 is replaced, loosen two screws and move the air plate upward.

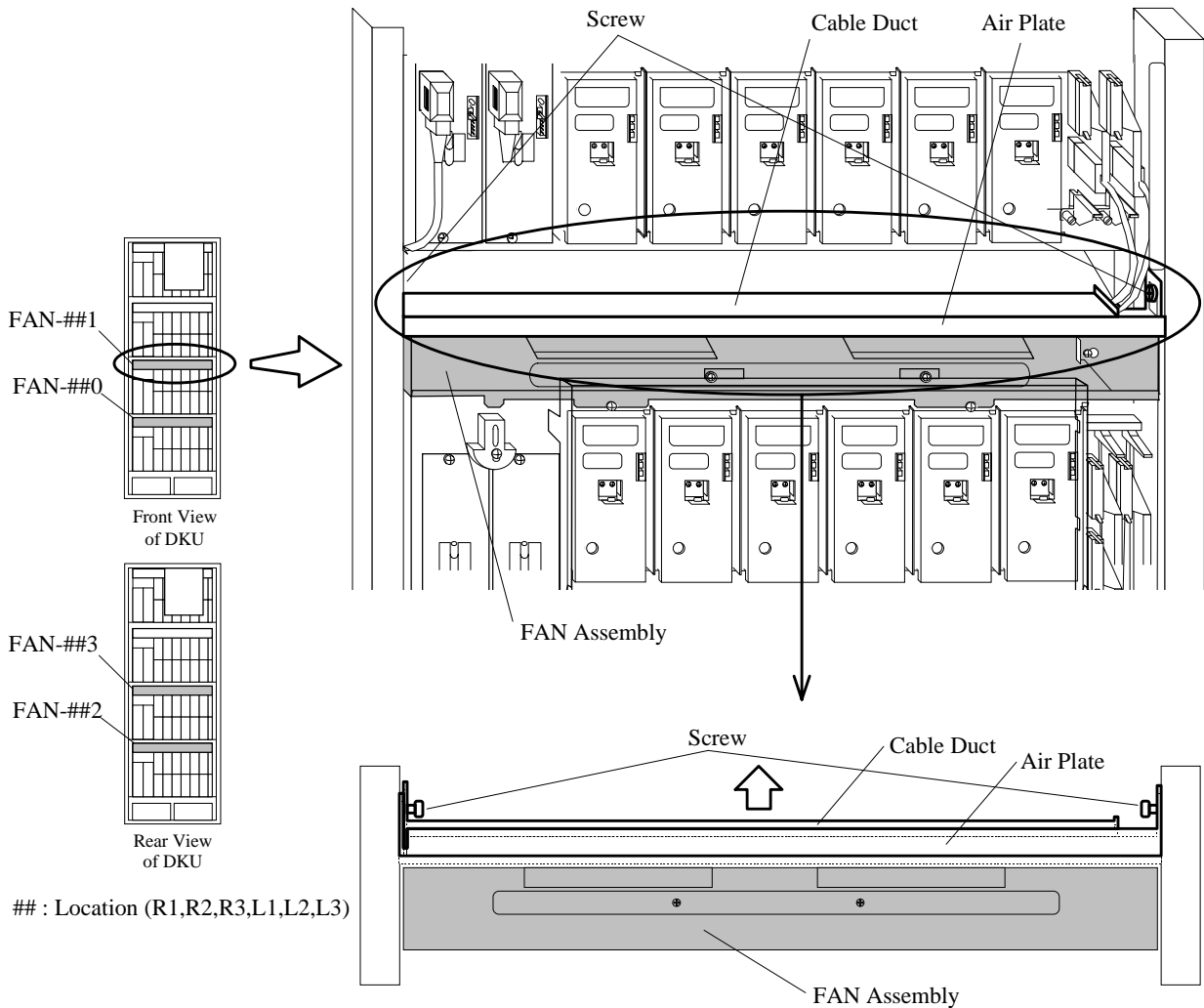


Fig. T16-1 Move the air plate(When FAN-##0 to FAN-##3 is replaced)

2. The following figure shows the correct way to replace the HDD FAN Assembly.
 - a. Remove the acrylic cover from the HDU Box.

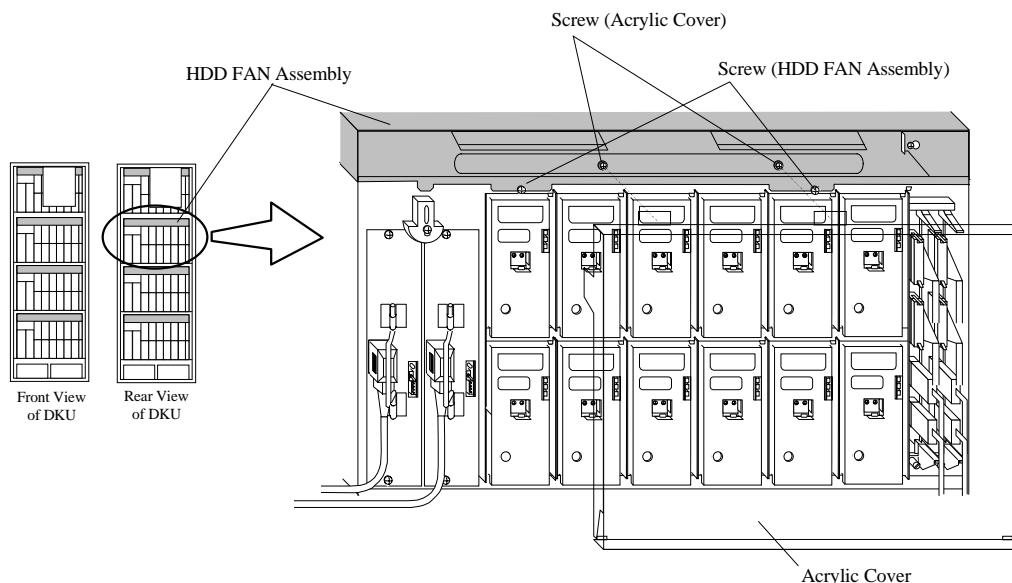


Fig. T16-2 Removal of Acrylic Cover

- b. Loosen the two screws.
- c. Replace the HDD FAN assembly.
- d. Fasten the screw.
- e. Attach the acrylic cover.

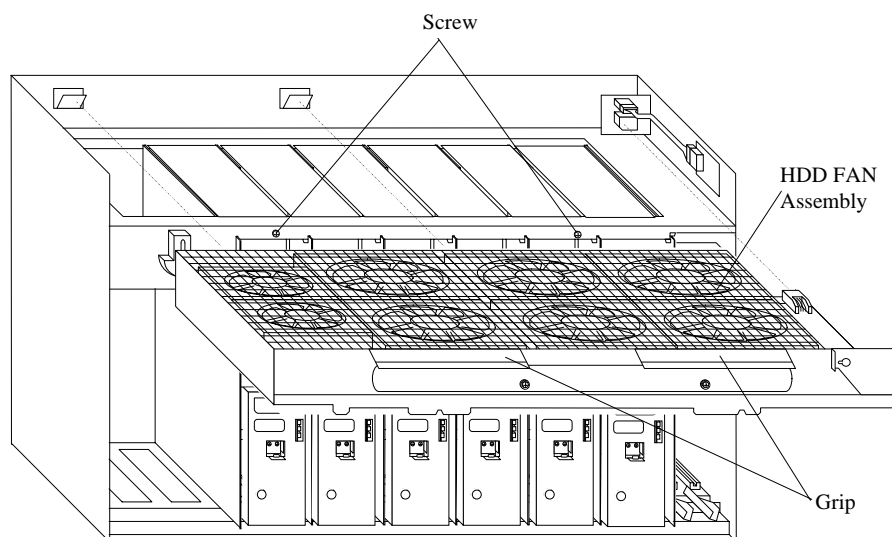
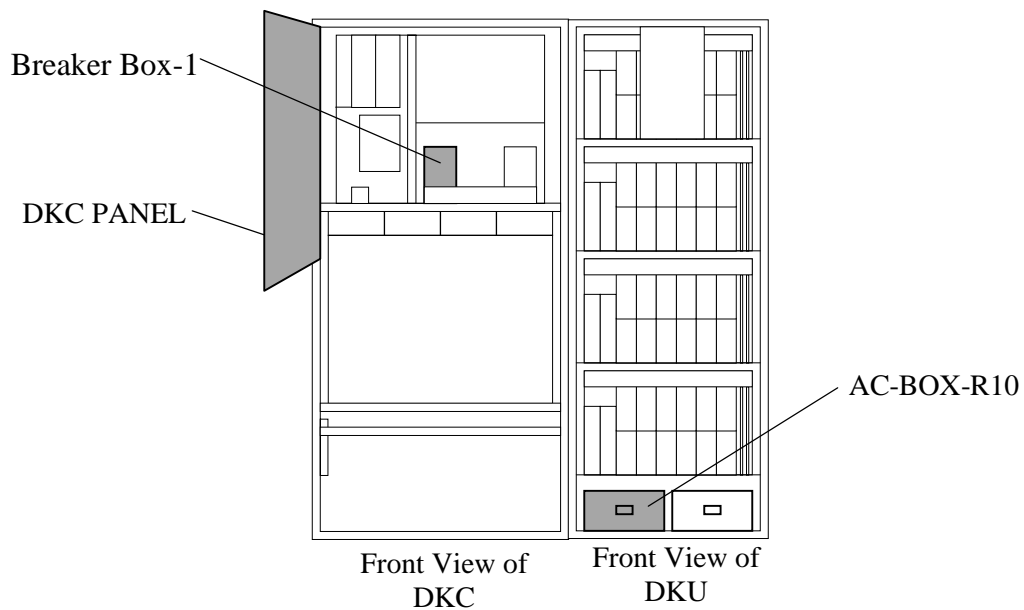


Fig. T16-3 Removal of HDD FAN Assembly

3. When the FAN-##0, FAN-##1, FAN-##2 or FAN-##3 was replaced, move the air plate downward and fasten two screws.
4. Go to SVP post procedure t4 [\[REP04-610\]](#).

[HARDWARE T17]

Location	Function Name of Component		Part Name
Lower of R1 DKU	1	AC BOX	•AC BOX-R10
(Reference) The related PCB for replacement of AC BOX-R10 1. DKC PANEL PCB (Front of DKC) 2. Breaker Box-1 (Front of DKC) 3. Circuit breakers on the power distribution panel that are connected to the AC BOX-R10			

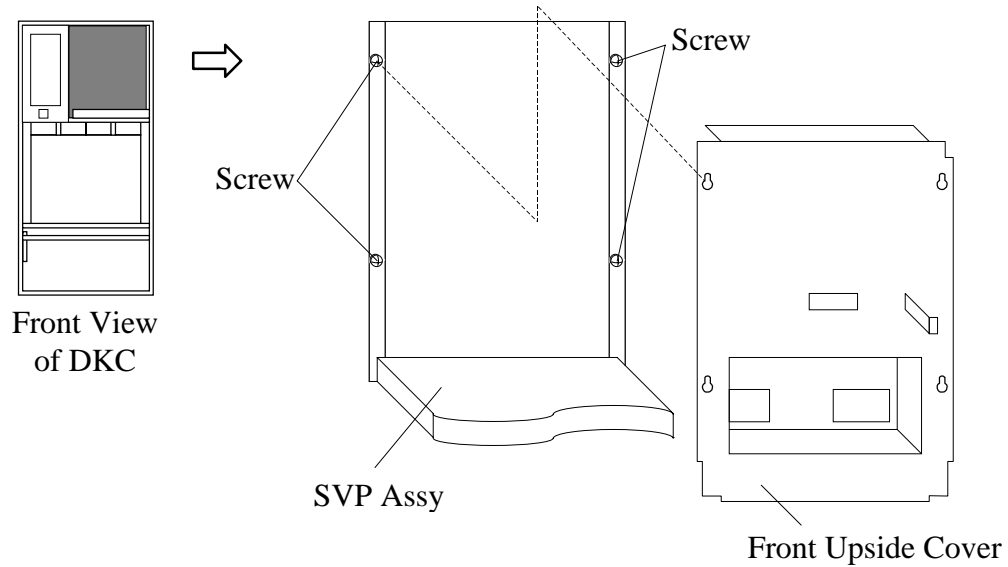


NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of AC BOX-R10

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.



3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

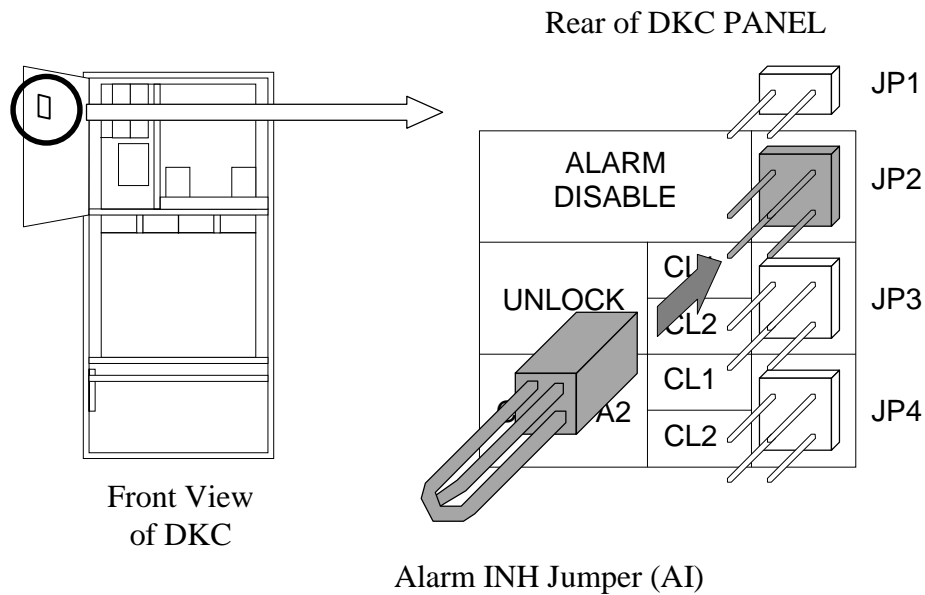


Fig. T17-1 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T17-1 Circuit Breakers to be Turned Off When Replacing AC BOX-R10

No.	Unit	Location No.	Breaker No.	Remarks
1	DKC	Breaker Box-1	CB201	
2	R1 DKU	AC BOX-R10	CB101	
3	Circuit breakers on the power distribution panel in the plant that are connected to the AC BOX-R10.			Failure to turn off may result in an electric shock

- a. Turn off the circuit breakers (CB201) on Breaker Box in the Disk Controller.

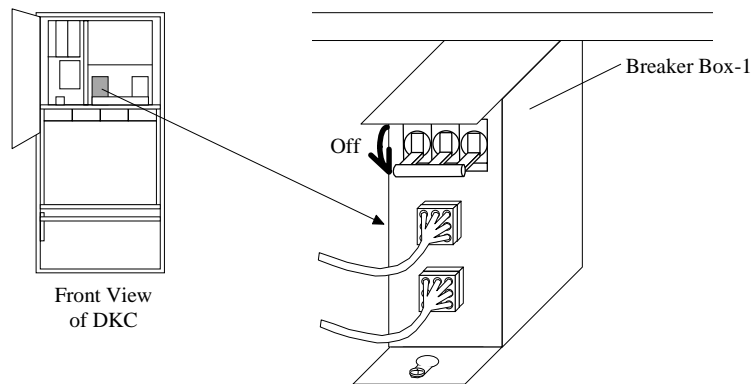


Fig. T17-2 Turn off the Circuit Breaker of Breaker Box-1

- b. Turn off the circuit breakers (CB101) on AC BOX-R10 in the R1 DKU.

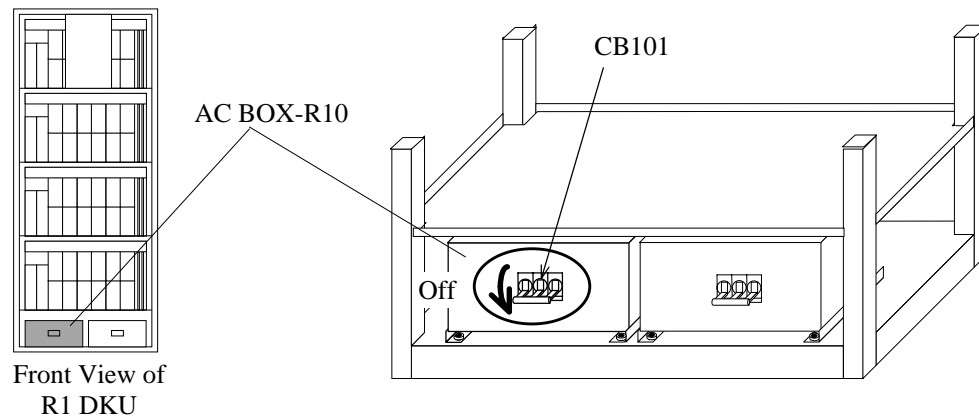


Fig. T17-3 Turn off the Circuit Breaker of AC BOX-R10

5. Removal of Plate

WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-R10.

- a. Remove the two screws.
- b. Slide the plate toward the rear to remove it.

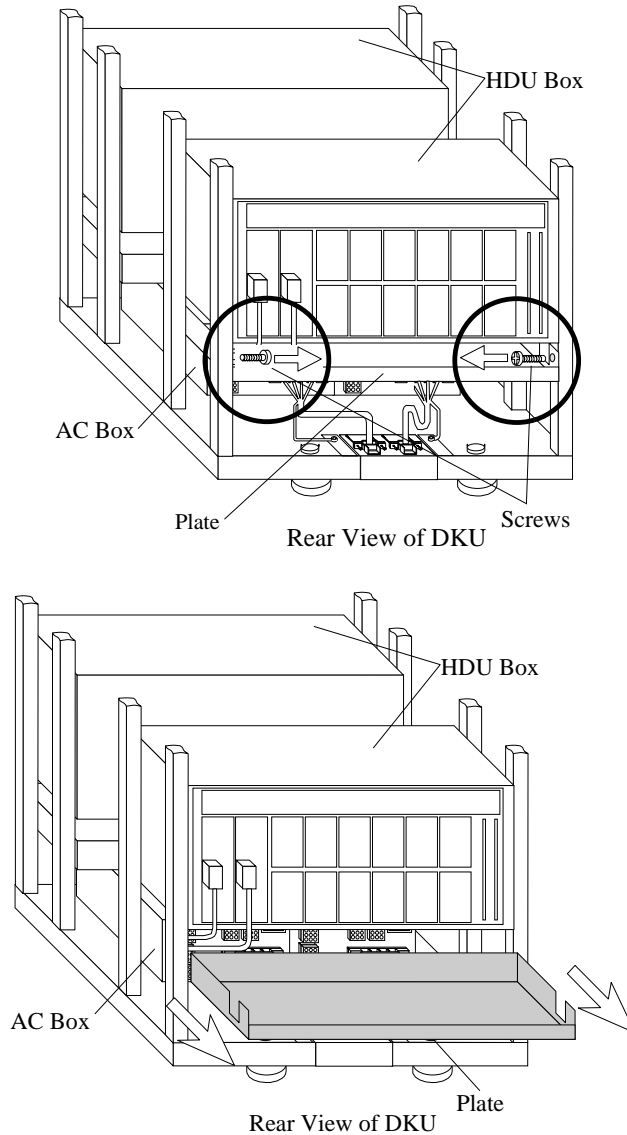


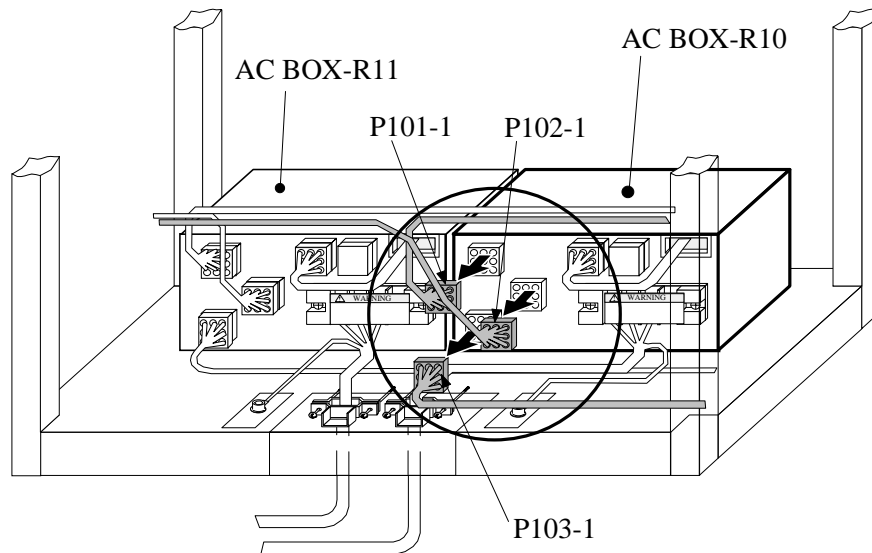
Fig. T17-4 Removal of Plate

6. Removal of AC BOX-R10

! WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-R10.

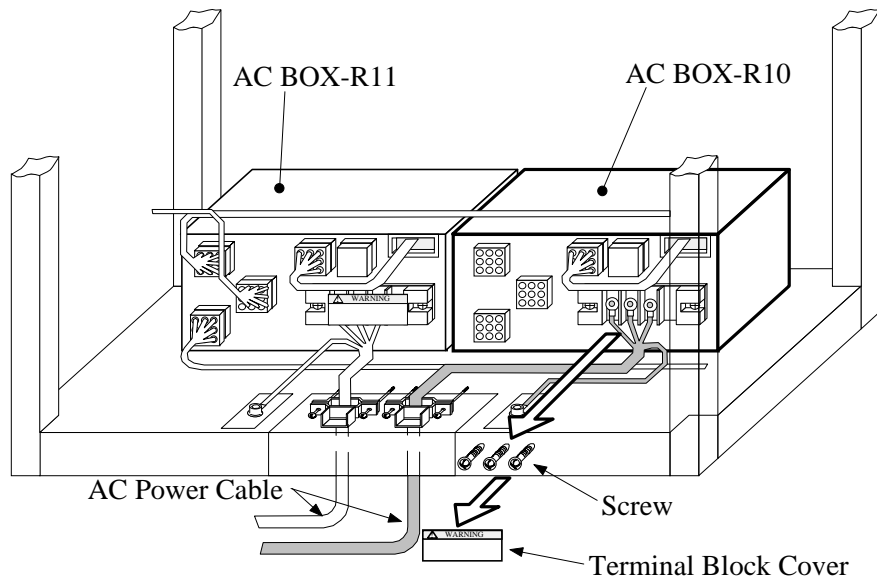
- a. Unplug cable connectors P101-1, P102-1, and P103-1 from AC BOX-R10.



Rear View of R1 DKU

Fig. T17-5 Disconnection of Cable Connectors from AC BOX-R10

- b. Remove the terminal block cover and disconnect the AC power cable.



Rear View of R1 DKU

Fig. T17-6 Disconnection of AC Power Cable

- c. Remove two screws from the front panel of AC BOX-R10.
- d. Slide AC BOX-R10 backward and pull it out.

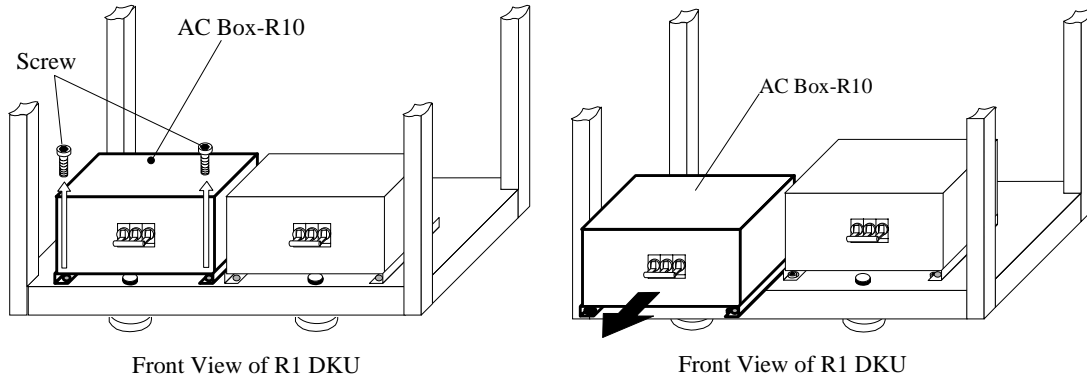


Fig. T17-7 Removal of AC BOX-R10

7 Spare AC Box Installation

- a. Check that the circuit breakers (CB101) on the spare AC Box are turned off.
- b. Slide the spare AC Box from the front to the rear.

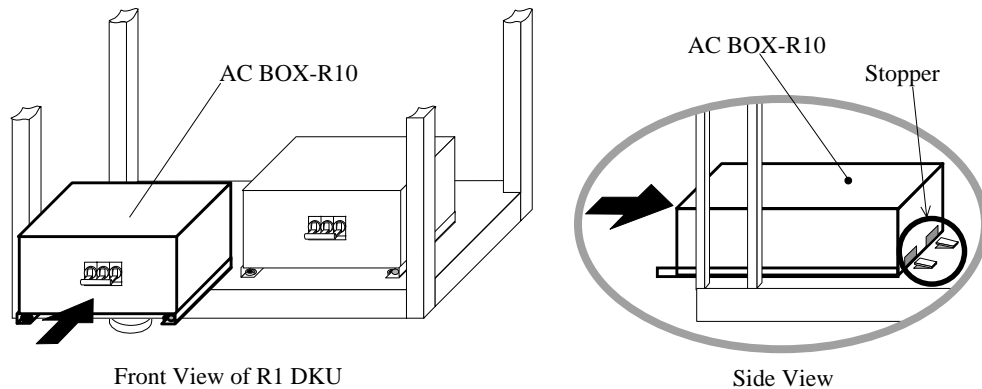


Fig. T17-8 Installation of New AC BOX

- c. Secure AC BOX-R10 at the front with the screws.

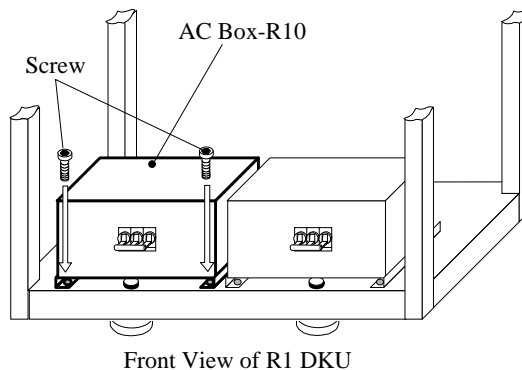


Fig. T17-9 Attachment of AC BOX-R10

- d. Connect the AC power cable to the terminal block. Attach the terminal block cover.

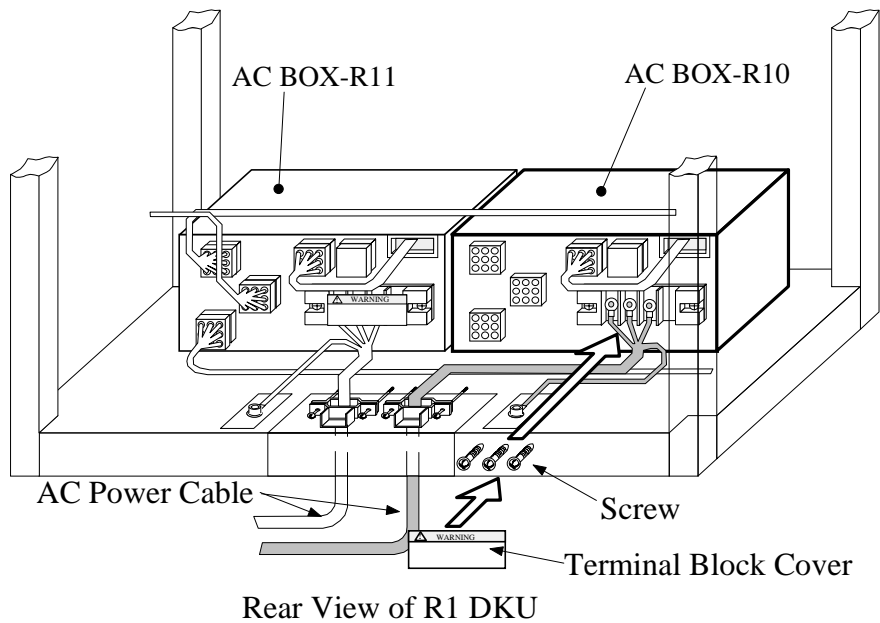


Table T17-2 AC Power Cable Conductors and Jumper Cable (P104) Locations

No.	Region	Input Voltage	AC Power Cable Conductors	Jumper Cable (P104) Location	Remarks
1	For USA	200-240Vac	4 (R,S,T,FG)	J104-1	J104-2 Dummy Connector
2	For Europe	380-415Vac	5 (R,S,T,N,FG)	J104-2	J104-1 Dummy Connector

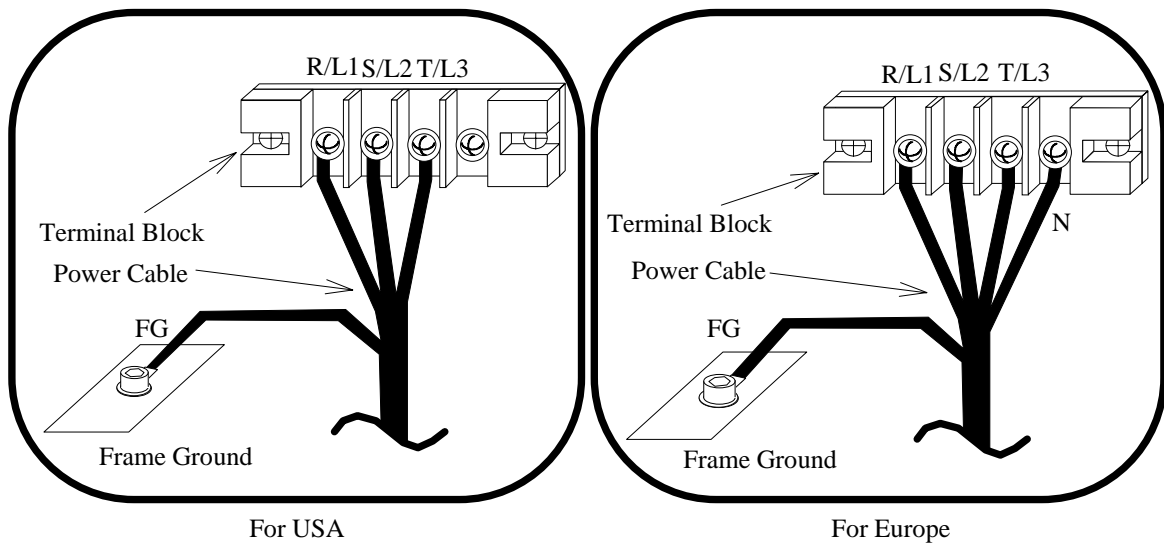
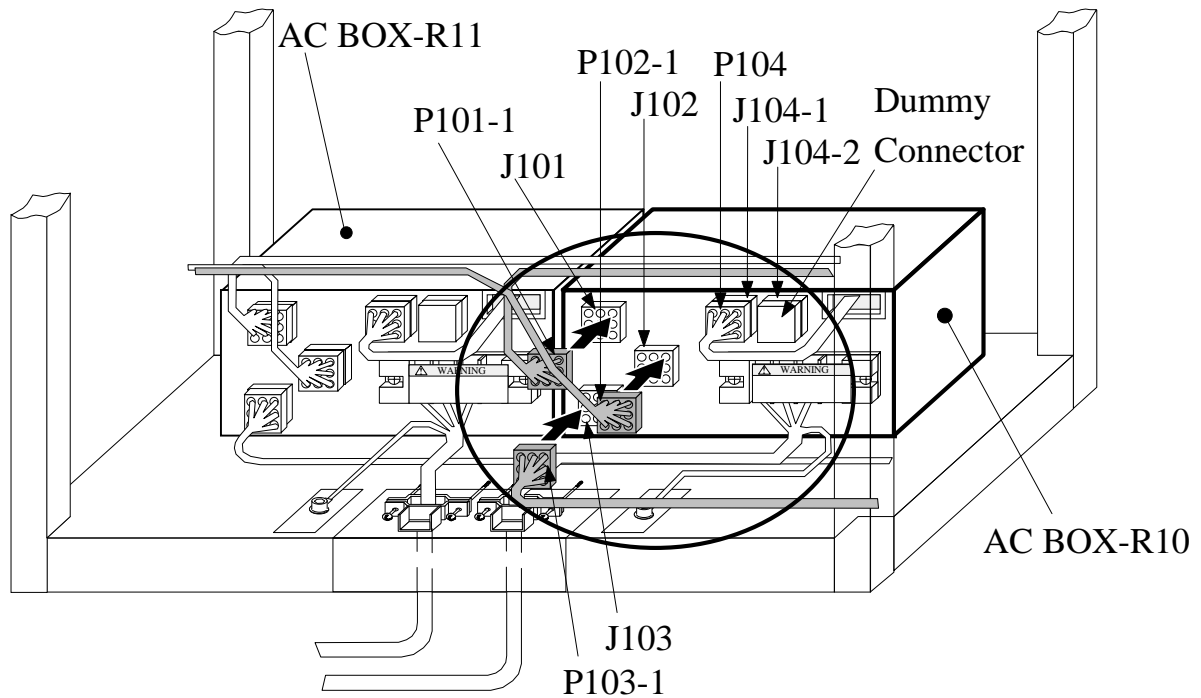


Fig. T17-10 Connection of AC Power Cable to Terminal Block

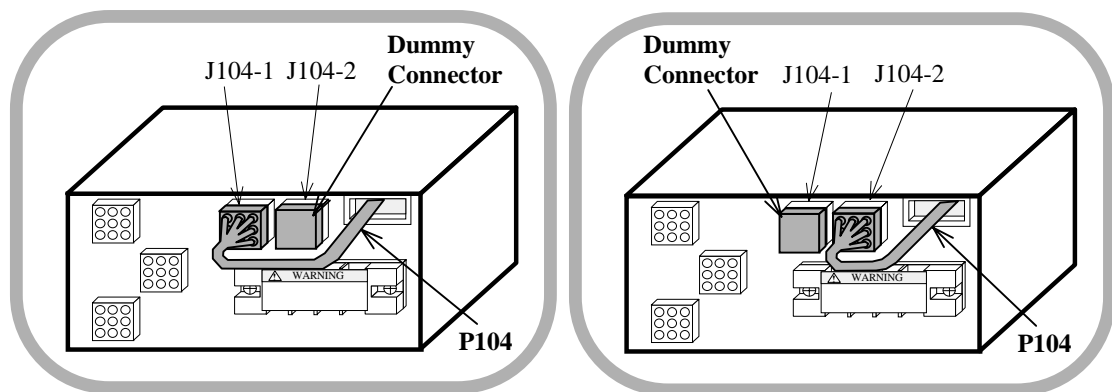
e. Connect the cables listed in Table T17-3.

Table T17-3 Cable Connection of AC BOX-R10

No.	Cable No.	AC Box	Remarks
1	P101-1	J101	
2	P102-1	J102	
3	P103-1	J103	
4	P104	J104-1	for USA
		J104-2	for Europe
5	Dummy Connector	J104-2	for USA
		J104-1	for Europe



Rear View of R1 DKU



For USA (Input AC Voltage : 200 - 240V) For Europe (Input AC Voltage : 380 - 415V)

Fig. T-17-11 Cable Connection of AC BOX-R10

8 Attachment of Plate

a. Attach the plate

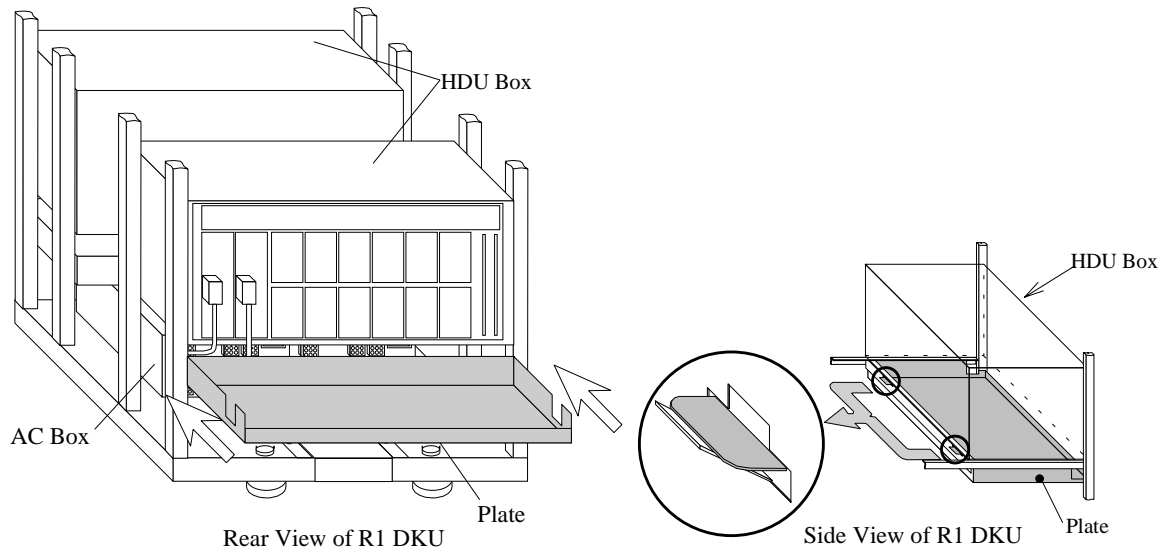


Fig. T17-12 Attachment of Plate

b. Secure the plate with the screws.

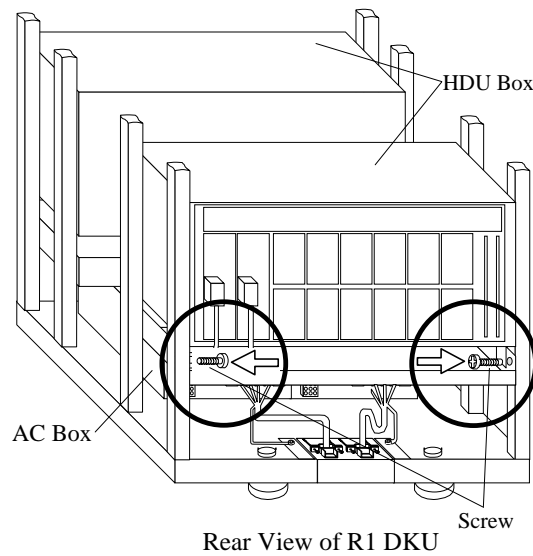


Fig. T17-13 Attachment of Plate

9. Power On the Replacement Component

- Turn on the circuit breakers on the power distribution panel that are connected to AC BOX-R10.
- Turn on all the circuit breakers on AC BOX-R10.
- Turn on all the circuit breakers listed in Table T17-1 [\[REP03-810\]](#).
- Turn “LED TEST / CHK RST” switch on the DKC panel to “CHK RST”.

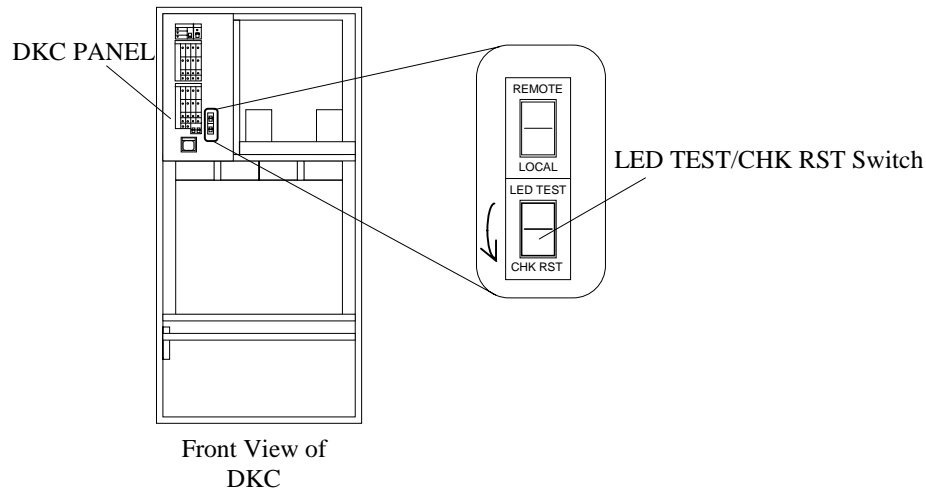


Fig. T17-14 Setting of IND TEST / CHK RST Switch

10. Disconnection of the Jumper

- Disconnect the Alarm INH Jumper from the connector on the DKC Panel.

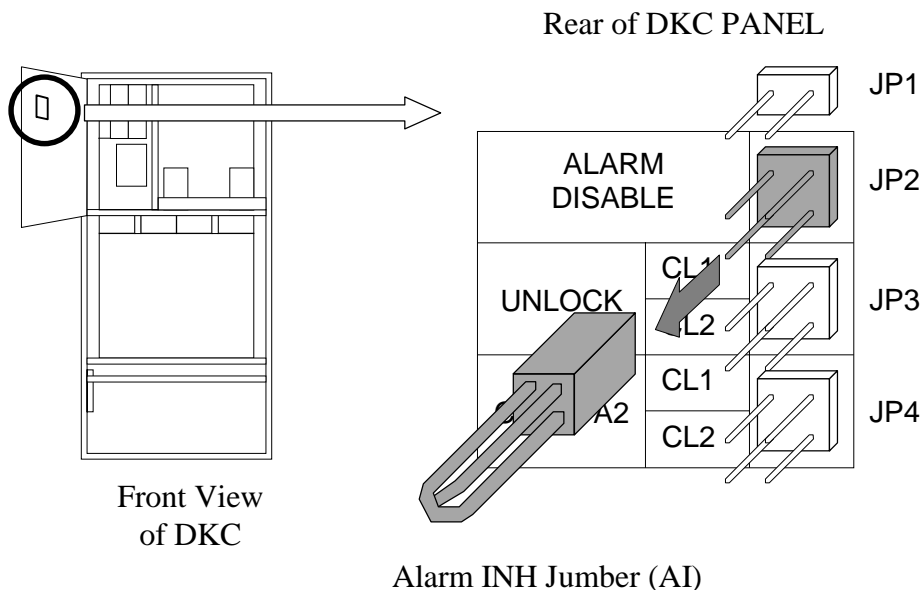


Fig. T17-15 Disconnection of Jumper

11. Go to SVP post procedure t4 [\[REP04-610\]](#).

[HARDWARE T18]

Location		Function Name of Component		Part Name
R1 DKU	Lower of DKU	1	AC BOX (except AC BOX-R10)	•AC BOX-R11
R2 DKU		2		•AC BOX-R20
		3		•AC BOX-R21
R3 DKU		4		•AC BOX-R30
		5		•AC BOX-R31
L1 DKU		6		•AC BOX-L10
		7		•AC BOX-L11
L2 DKU		8		•AC BOX-L20
		9		•AC BOX-L21
L3 DKU		10		•AC BOX-L30
		11		•AC BOX-L31

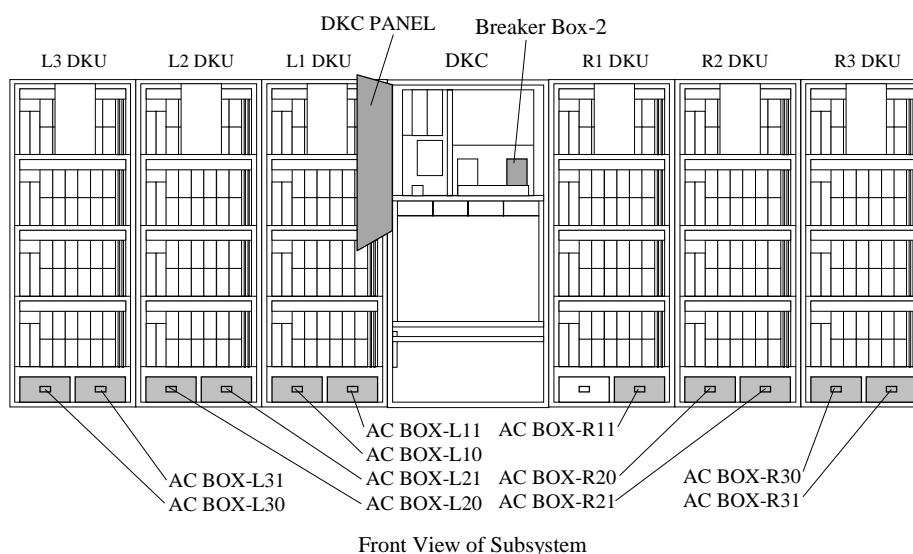
(Reference)

The related PCB for replacement of AC BOX-R11

1. DKC PANEL PCB (Front of DKC)
2. Breaker Box-2 (Front of DKC)
3. Circuit breakers on the power distribution panel that are connected to the AC BOX-R11

The related PCB for replacement of AC BOX except AC BOX-R10 and AC BOX-R11

1. Circuit breakers on the power distribution panel that are connected to the AC BOX



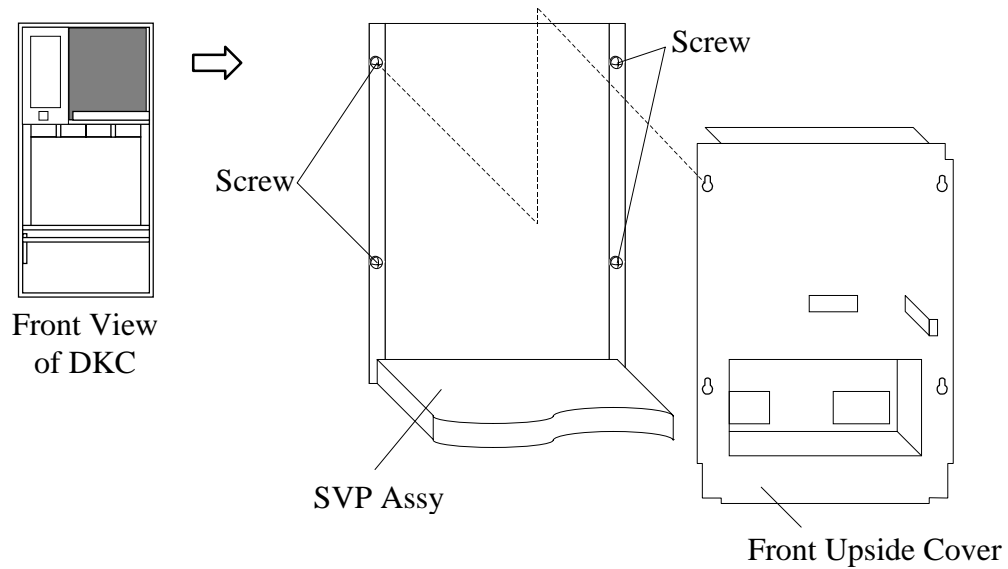
Front View of Subsystem

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of AC BOX-R11

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.



3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

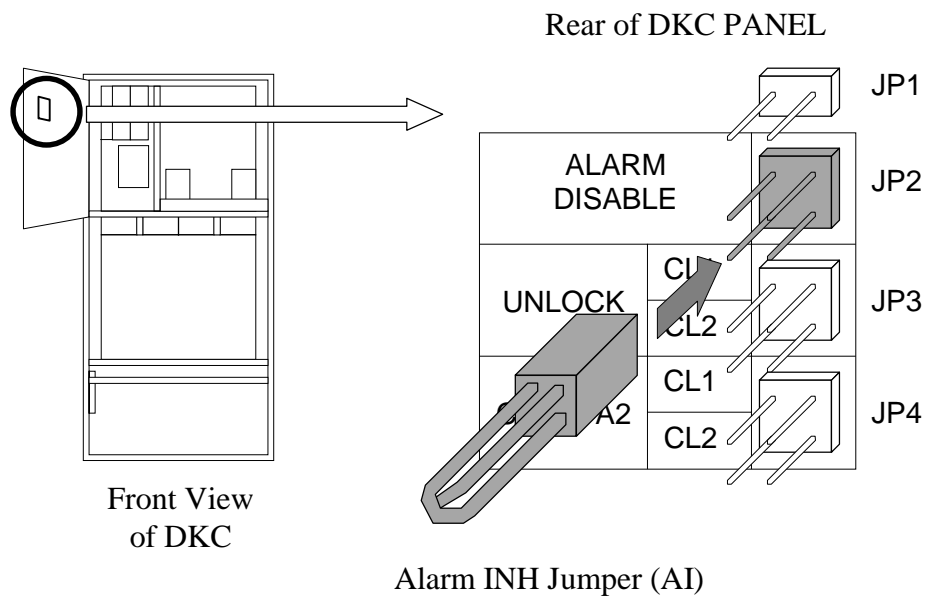


Fig. T18-1 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T18-1 Circuit Breakers to be Turned Off When Replacing AC BOX-R10

No.	Unit	Location No.	Breaker No.	Remarks
1	DKC	Breaker Box-2	CB201	
2	R1 DKU	AC BOX-R11	CB101	
3	Circuit breakers on the power distribution panel in the plant that are connected to the AC BOX-R11.			Failure to turn off may result in an electric shock

- a. Turn off the circuit breakers (CB201) on Breaker Box in the Disk Controller.

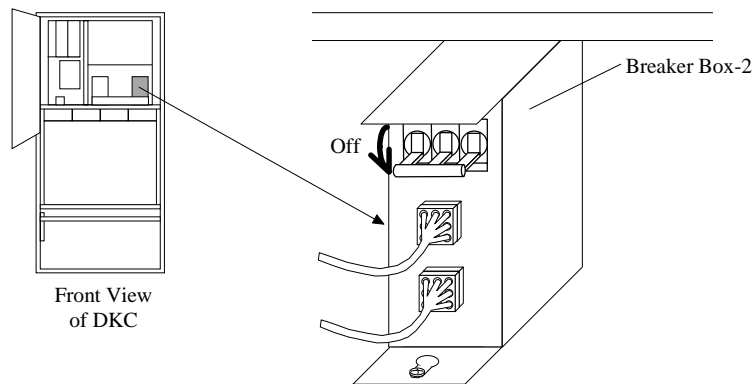


Fig. T18-2 Turn off the Circuit Breaker of Breaker Box-2

- b. Turn off the circuit breakers (CB101) on AC BOX-R11 in the R1 DKU.

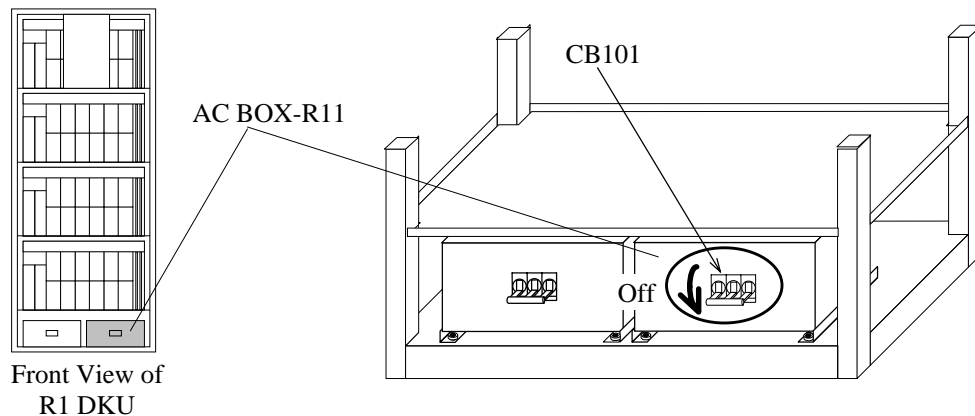


Fig. T18-3 Turn off the Circuit Breaker of AC BOX-R11

5. Removal of Plate

WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-R11.

- a. Remove the two screws.
- b. Slide the plate toward the rear to remove it.

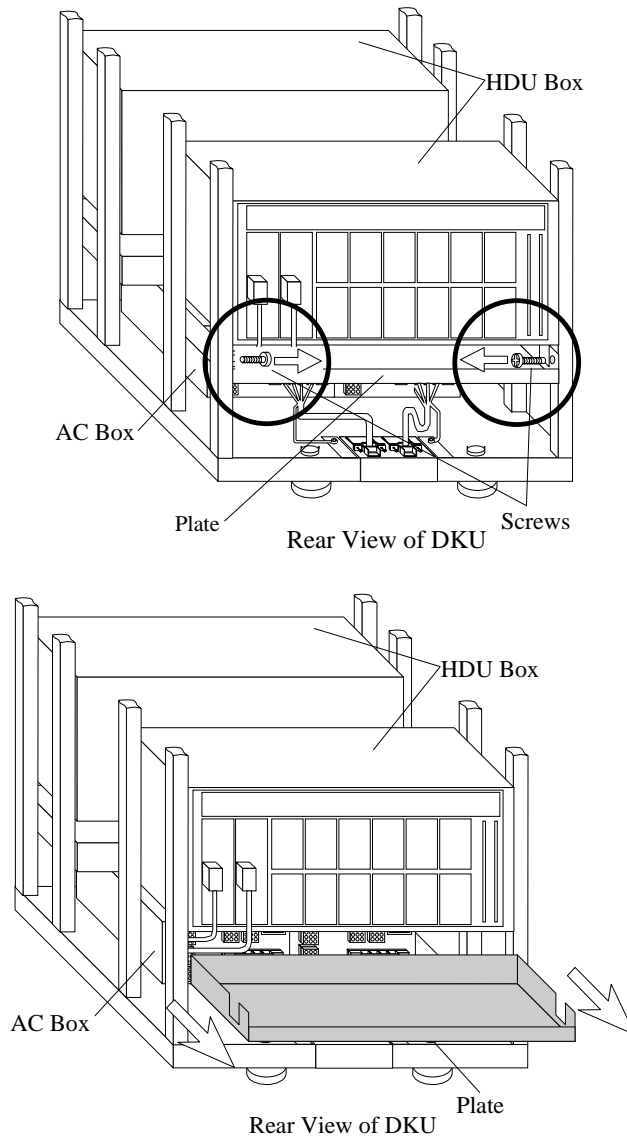


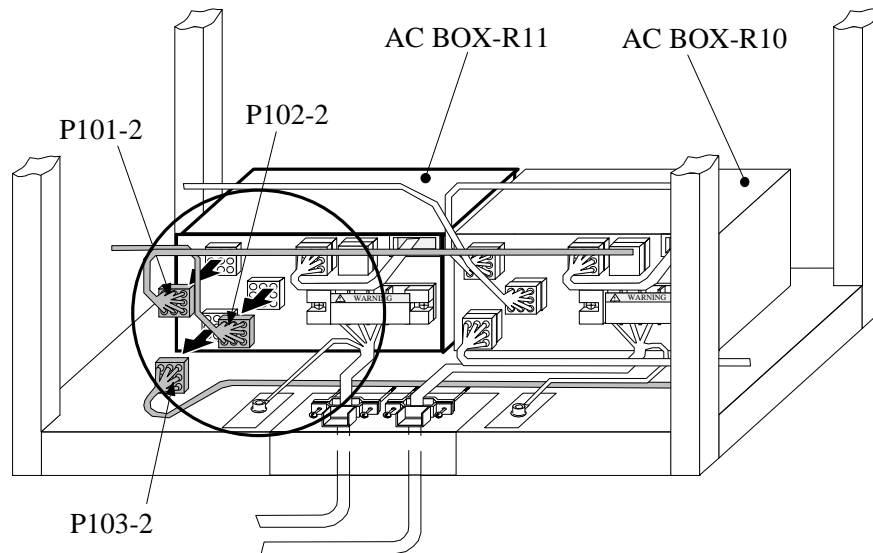
Fig. T18-4 Removal of Plate

6. Removal of AC BOX-R11

WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-R11.

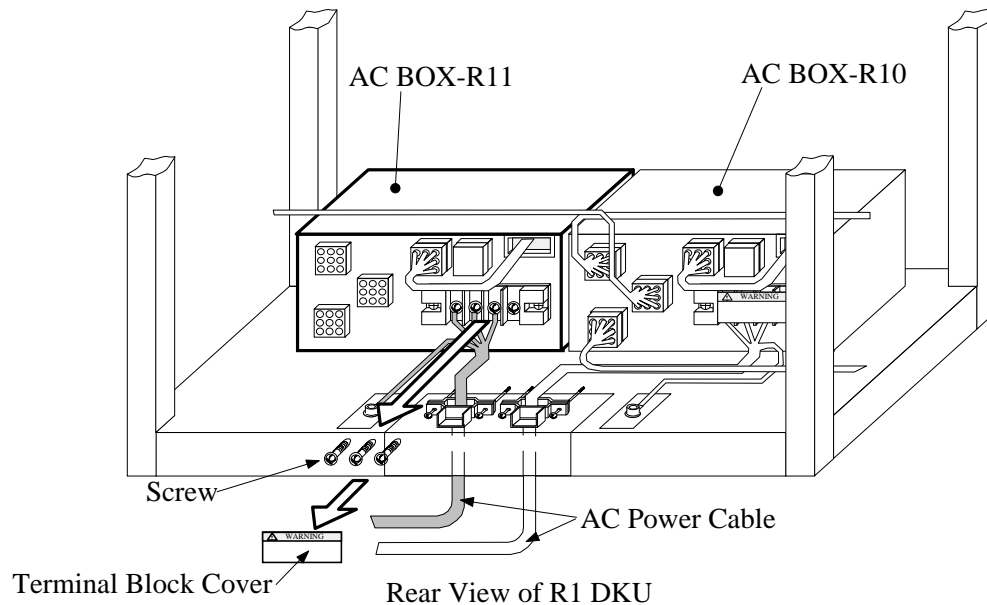
- a. Unplug cable connectors P101-2, P102-2, and P103-2 from AC BOX-R11.



Rear View of R1 DKU

Fig. T18-5 Disconnection of Cable Connectors from AC BOX-R11

- b. Remove the terminal block cover and disconnect the AC power cable.



Rear View of R1 DKU

Fig. T18-6 Disconnection of AC Power Cable

- c. Remove two screws from the front panel of AC BOX-R11.
- d. Slide AC BOX-R11 backward and pull it out.

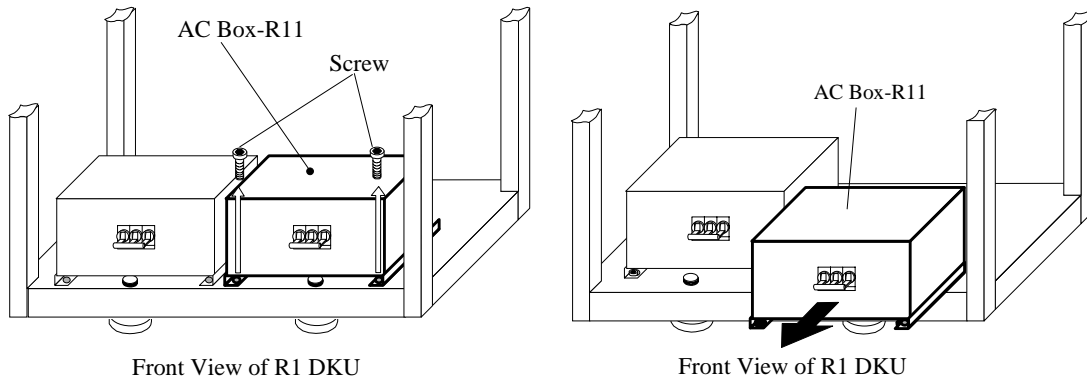


Fig. T18-7 Removal of AC BOX-R11

7 Spare AC Box Installation

- a. Check that the circuit breakers (CB101) on the spare AC Box are turned off.
- b. Slide the spare AC Box from the front to the rear.

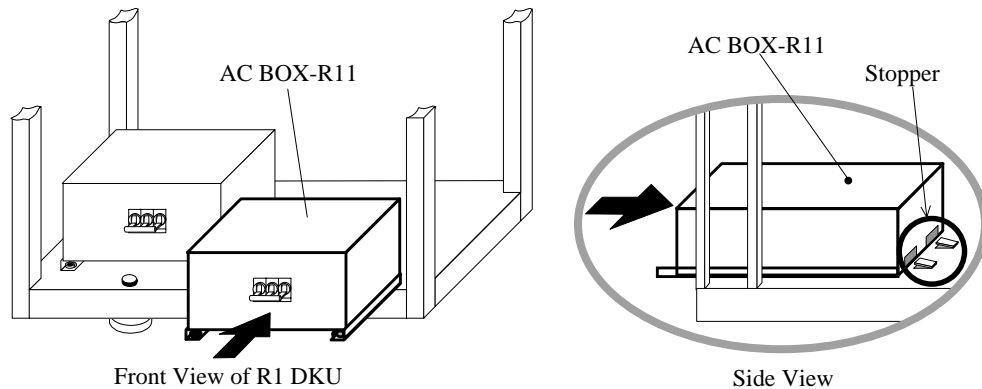


Fig. T18-8 Installation of New AC BOX

- c. Secure AC BOX-R11 at the front with the screws.

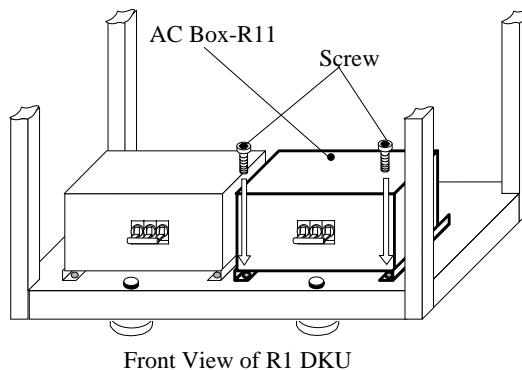


Fig. T18-9 Attachment of AC BOX-R11

- d. Connect the AC power cable to the terminal block. Attach the terminal block cover.

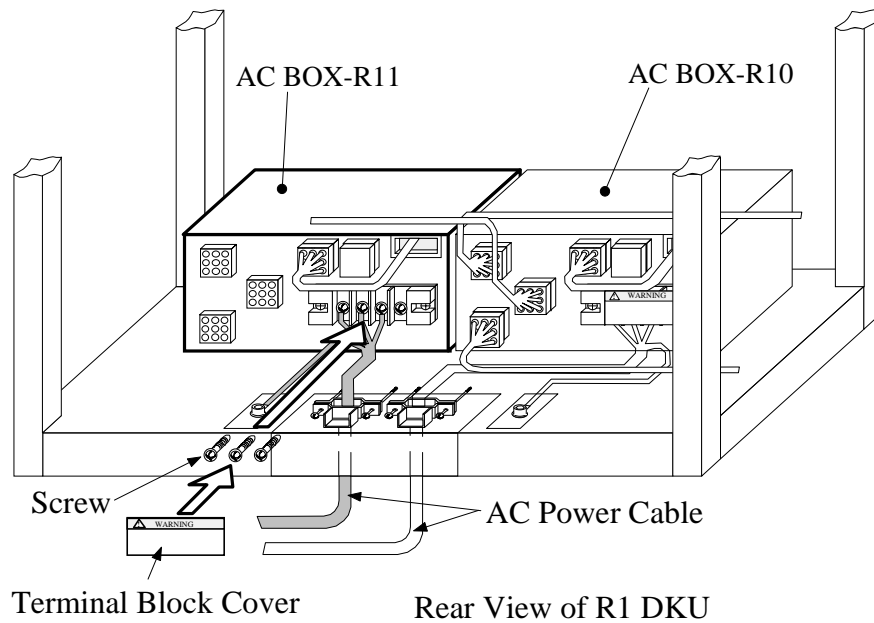


Table T18-2 AC Power Cable Conductors and Jumper Cable (P104) Locations

No.	Region	Input Voltage	AC Power Cable Conductors	Jumper Cable (P104) Location	Remarks
1	For USA	200-240Vac	4 (R,S,T,FG)	J104-1	J104-2 Dummy Connector
2	For Europe	380-415Vac	5 (R,S,T,N,FG)	J104-2	J104-1 Dummy Connector

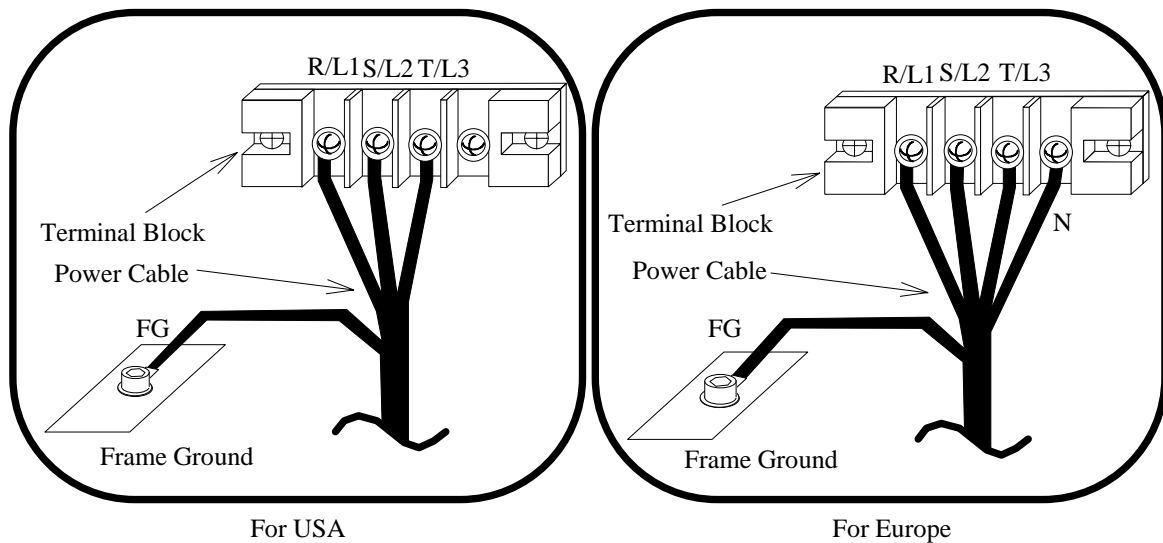
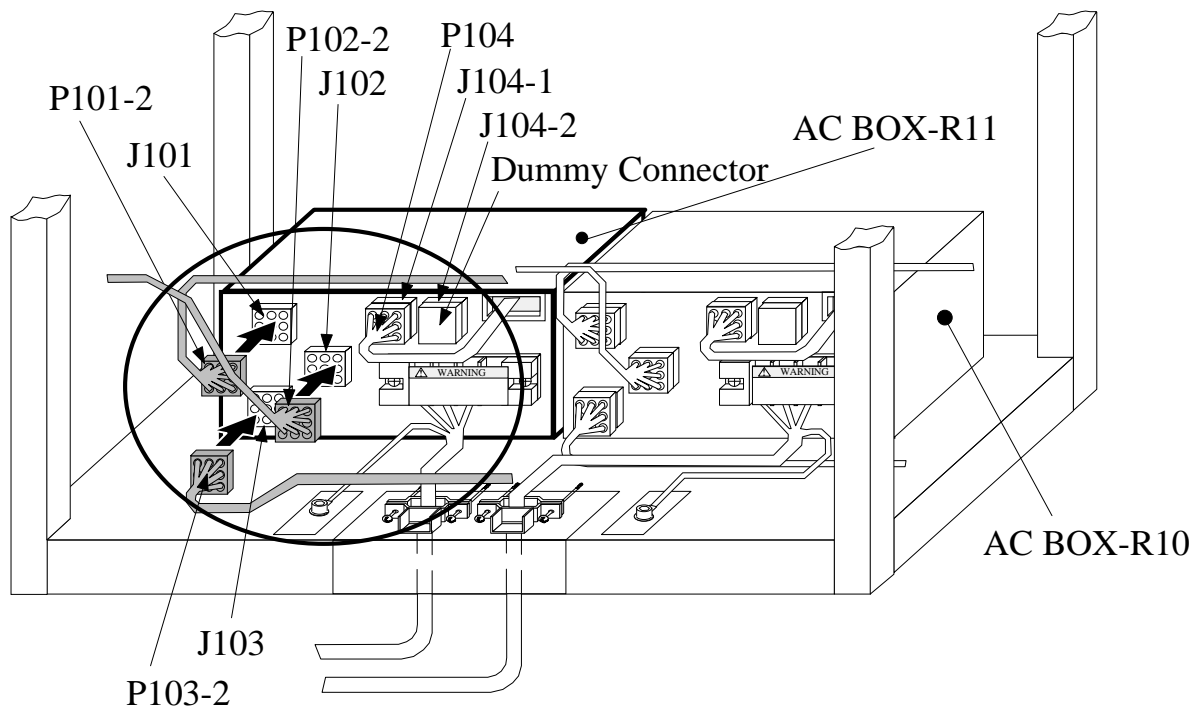


Fig. T18-10 Connection of AC Power Cable to Terminal Block

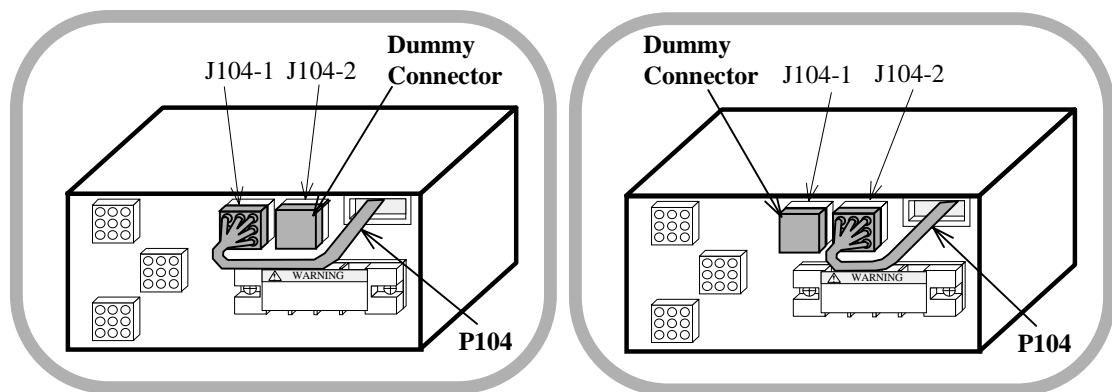
e. Connect the cables listed in Table T18-3.

Table T18-3 Cable Connection of AC BOX-R11

No.	Cable No.	AC Box	Remarks
1	P101-2	J101	
2	P102-2	J102	
3	P103-2	J103	
4	P104	J104-1	for USA
		J104-2	for Europe
5	Dummy Connector	J104-2	for USA
		J104-1	for Europe



Rear View of R1 DKU



For USA (Input AC Voltage : 200 - 240V) For Europe (Input AC Voltage : 380 - 415V)

Fig. T-18-11 Cable Connection of AC BOX-R11

8 Attachment of Plate

a. Attach the plate

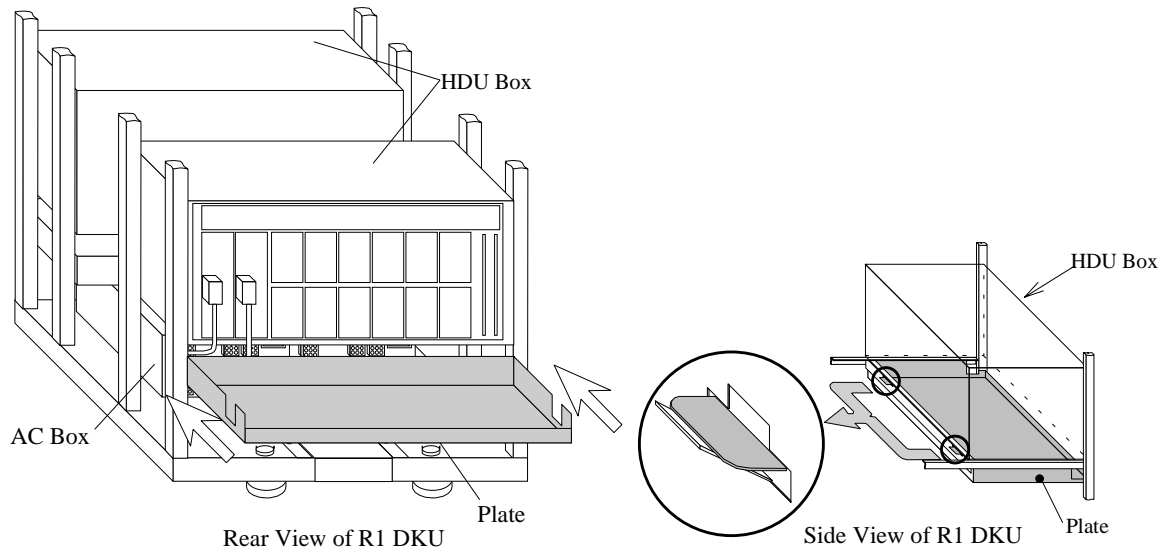


Fig. T18-12 Attachment of Plate

b. Secure the plate with the screws.

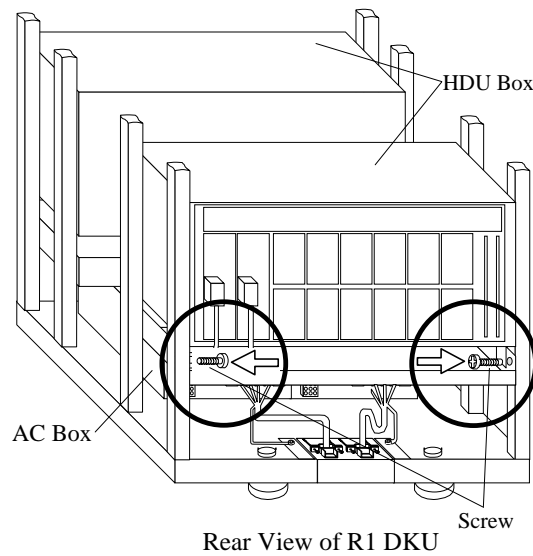


Fig. T18-13 Attachment of Plate

9. Power On the Replacement Component

- Turn on the circuit breakers on the power distribution panel that are connected to AC BOX-R11.
- Turn on all the circuit breakers on AC BOX-R11.
- Turn on all the circuit breakers listed in Table T18-1 [\[REP03-910\]](#).
- Turn “LED TEST / CHK RST” switch on the DKC panel to “CHK RST”.

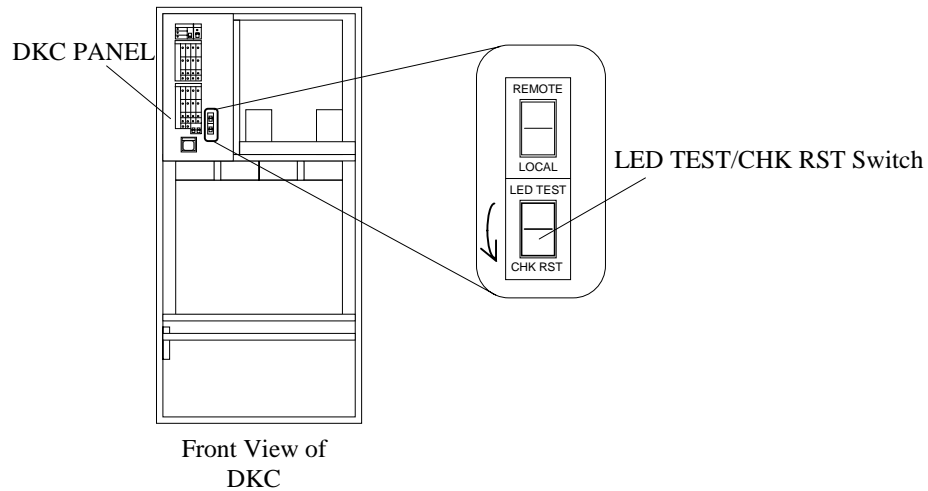


Fig. T18-14 Setting of IND TEST / CHK RST Switch

10. Disconnection of the Jumper

- Disconnect the Alarm INH Jumper from the connector on the DKC Panel.

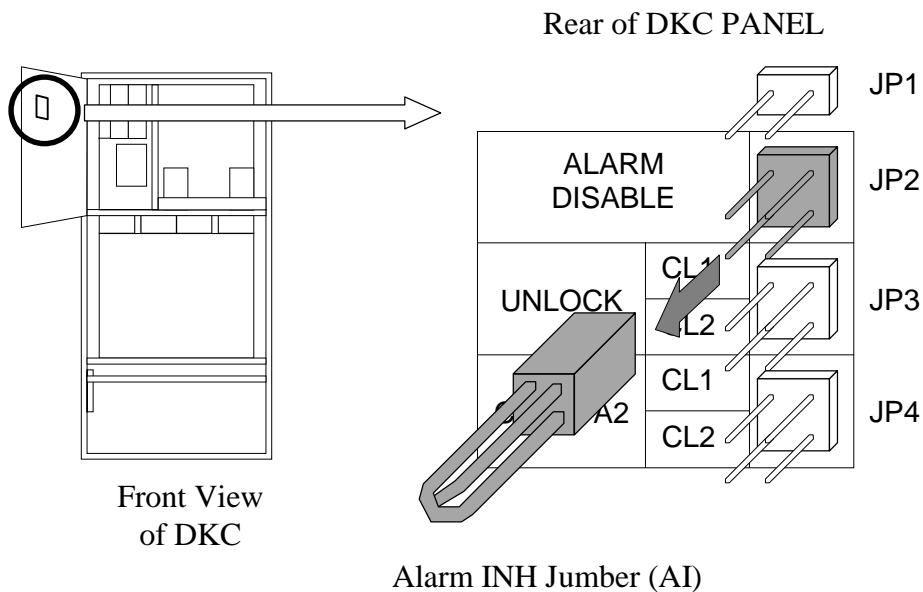


Fig. T18-15 Disconnection of Jumper

11. Go to SVP post procedure t4 [\[REP04-610\]](#).

Other AC Boxes

(AC BOX-R20, AC BOX-R21, AC BOX-R30, AC BOX-R31, AC BOX-L10, AC BOX-L11, AC BOX-L20, AC BOX-L21, AC BOX-L30, AC BOX-L31)

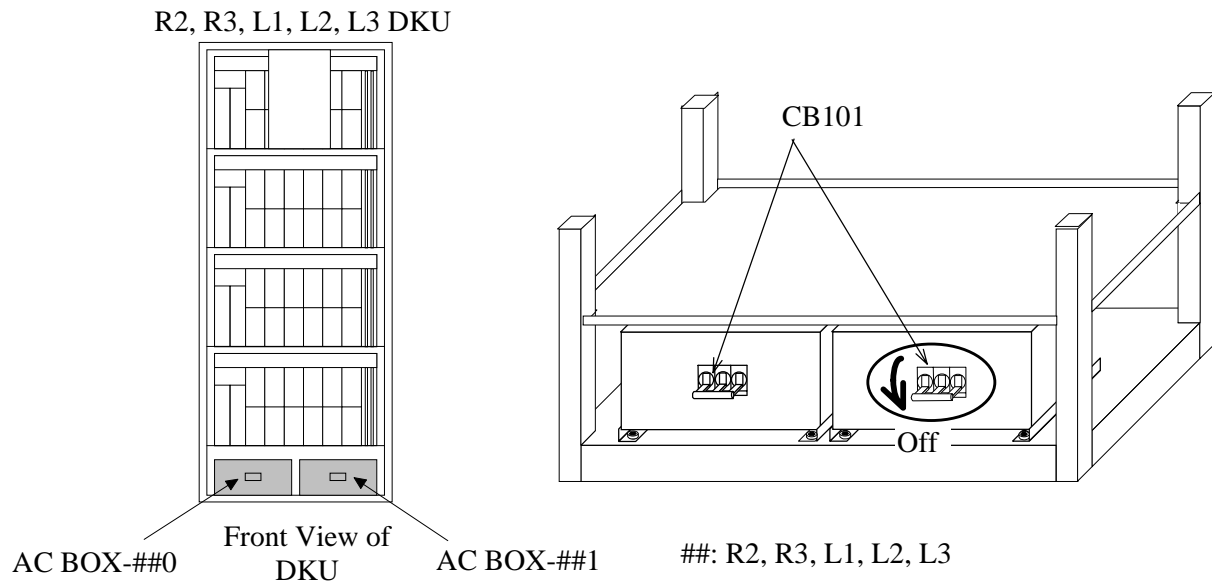
1. Power Off the Component to be Replaced.

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

- a. Turn off the circuit breakers for the AC BOX to be replaced (CB101).



T18-16 AC BOX Location and Turn off the Circuit Breaker

- b. Turn off the circuit breakers on the power distribution panel in the plant that are connected to the AC BOX to be replaced.

WARNING

Warning: You will get an electric shock if you fail to turn it off.

2. Removal of Plate

WARNING

Warning: You will get an electric shock if you fail to turn it off.

Start your work after turning off the breaker on the distribution board connected to the AC BOX.

- a. Remove the two screws.
- b. Slide the plate toward the rear to remove it.

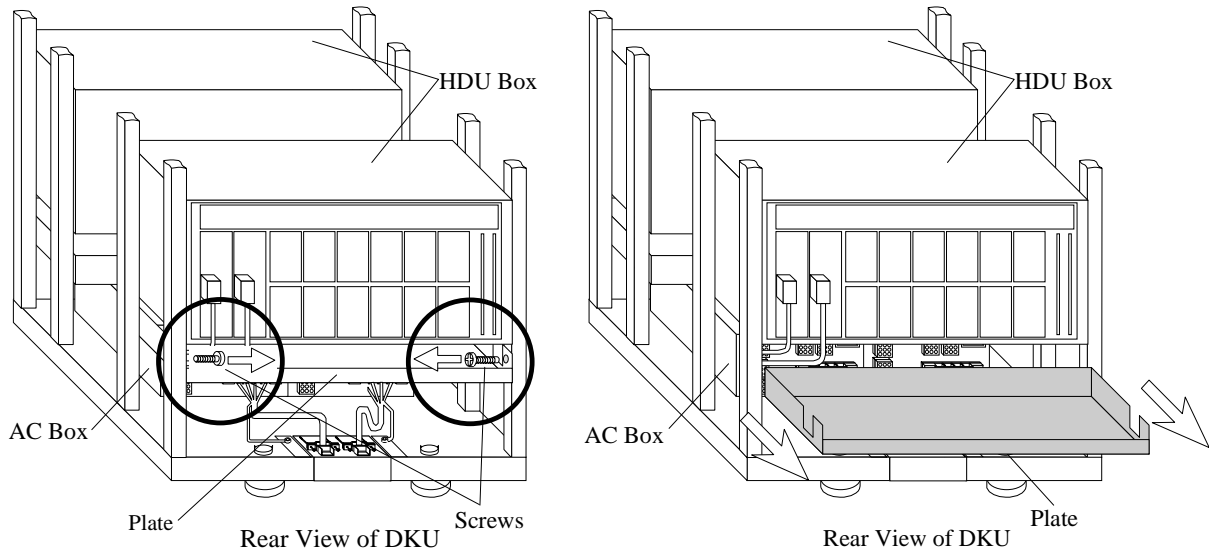
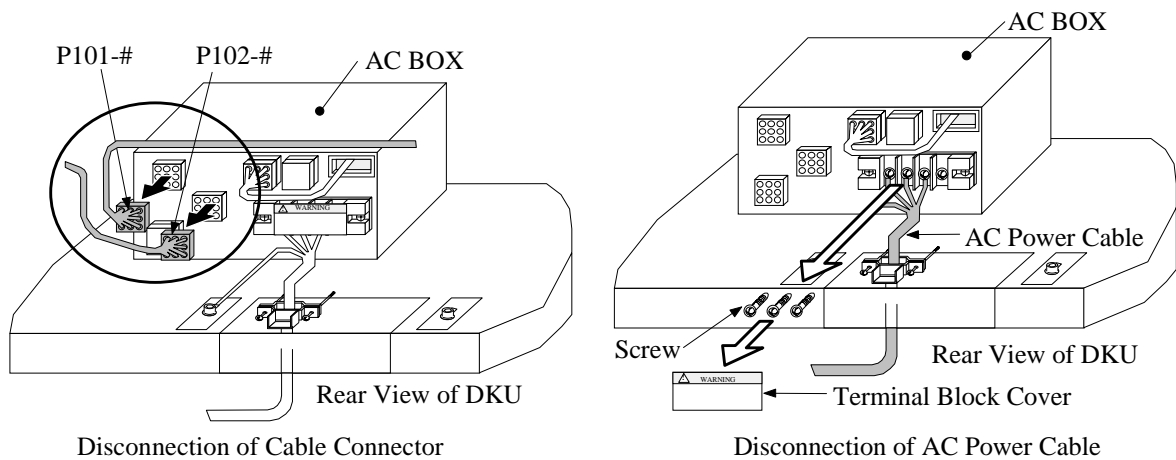


Fig. T18-17 Removal of Plate

3. Removal of AC BOX

- a. Unplug cable connectors P101-# and P102-# from AC BOX to be replaced.
- b. Remove the terminal block cover and disconnect the AC power cable.



T18-18 Disconnection of Cable

- c. Remove two screws from the front panel of AC BOX to be replaced.
- d. Slide AC BOX to be replaced backward and pull it out.

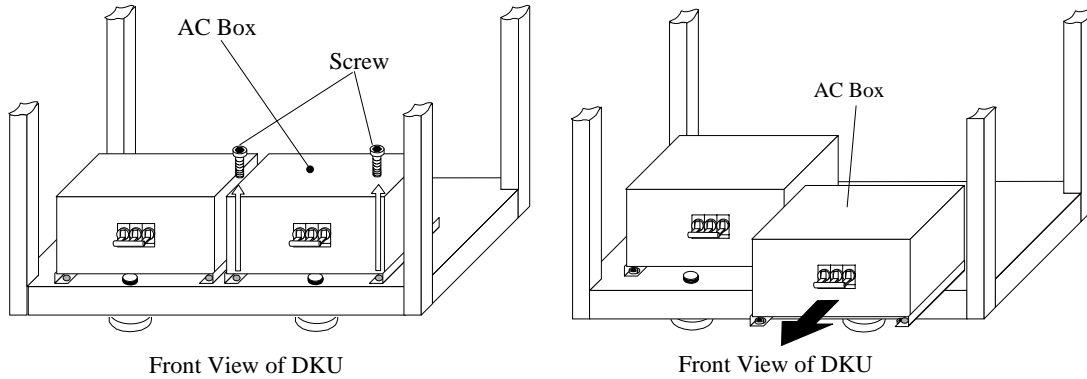


Fig. T18-19 Removal of AC BOX

4 Spare AC Box Installation

- a. Check that the circuit breakers (CB101) on the spare AC Box are turned off.
- b. Slide the replacement AC Box from the front to the rear.

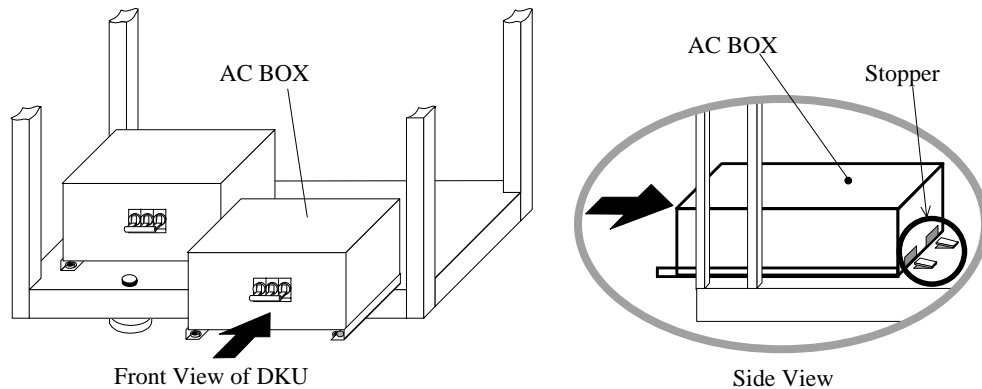


Fig. T18-20 Installation of spare AC BOX

- c. Secure the replacement AC BOX at the front with the screws.

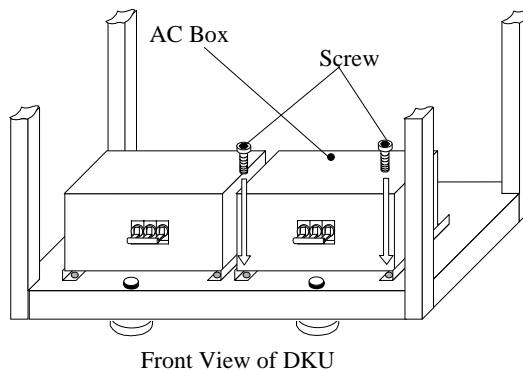


Fig. T18-21 Attachment of spare AC BOX

- d. Connect the AC power cable to the terminal block. Attach the terminal block cover.

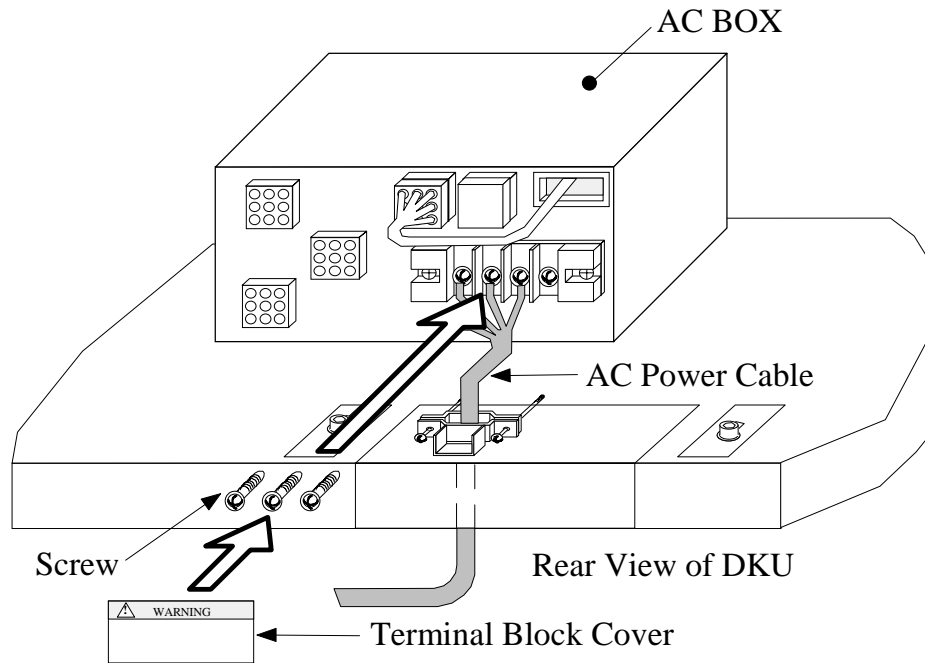


Table T18-4 AC Power Cable Conductors and Jumper Cable (P104) Locations

No.	Region	Input Voltage	AC Power Cable Conductors	Jumper Cable (P104) Location	Remarks
1	For USA	200-240Vac	4 (R,S,T,FG)	J104-1	J104-2 Dummy Connector
2	For Europe	380-415Vac	5 (R,S,T,N,FG)	J104-2	J104-1 Dummy Connector

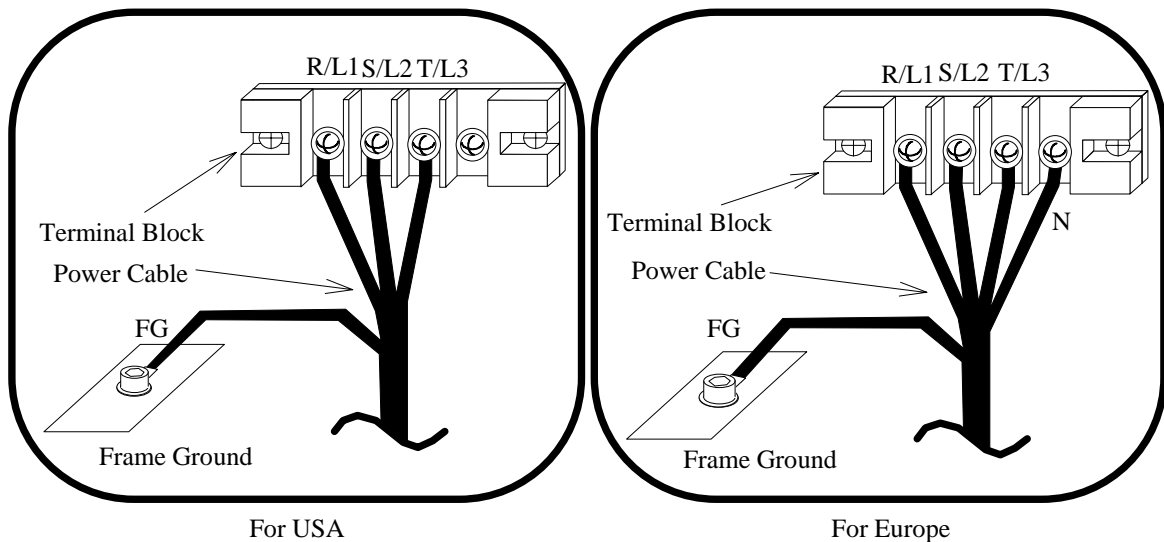


Fig. T18-22 Connection of AC Power Cable to Terminal Block

e. Connect the cables listed in Table T18-4.

Table T18-4 Cable Connection of AC BOX

No.	Cable No.	AC Box	Remarks
1	P101-#	J101	
2	P102-#	J102	
3	Dummy Connector	J103	
4	P104	J104-1	for USA
		J104-2	for Europe
5	Dummy Connector	J104-2	for USA
		J104-1	for Europe

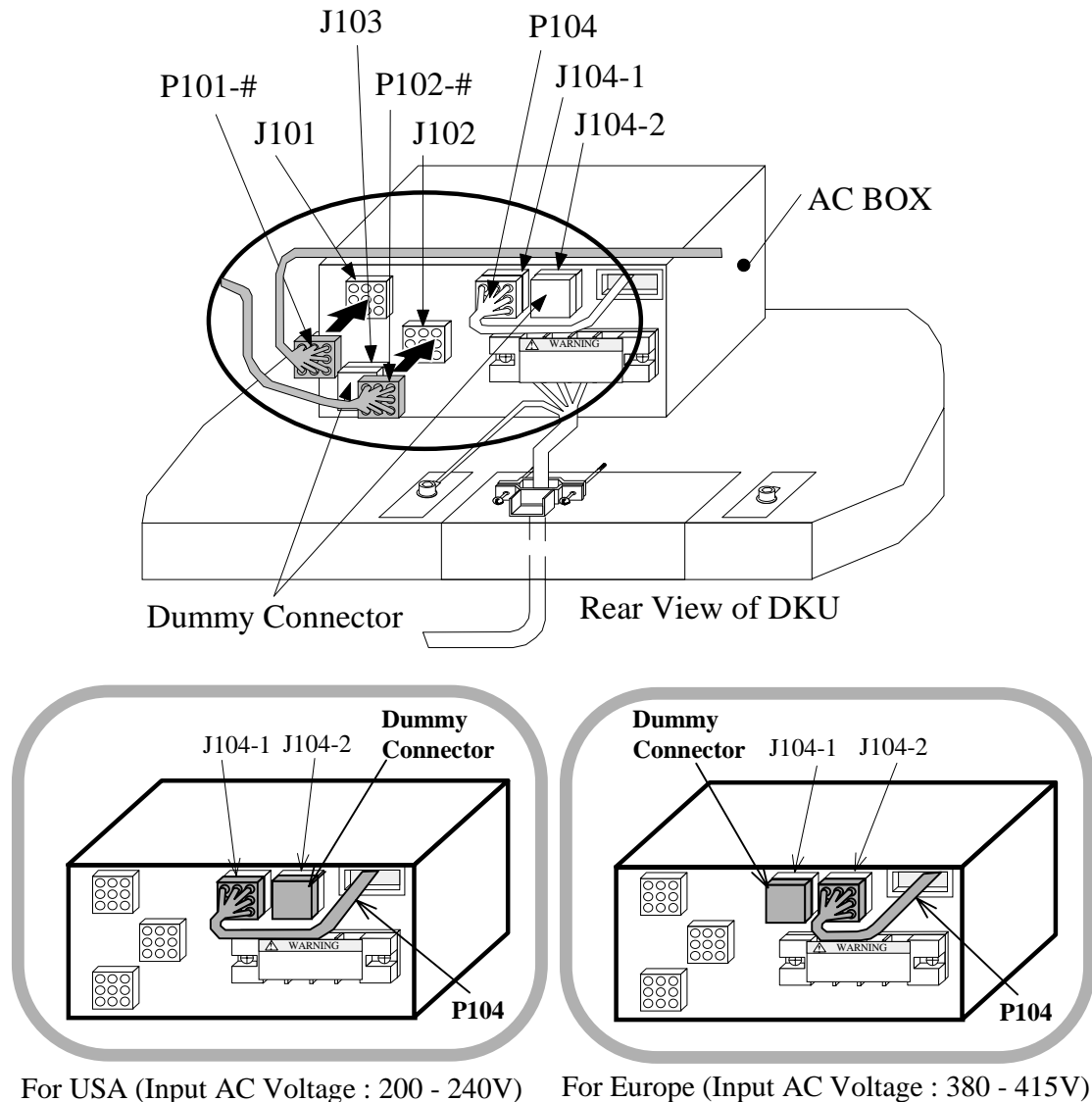


Fig. T-18-23 Cable Connection of AC BOX-R11

5 Attachment of Plate

a. Attach the plate

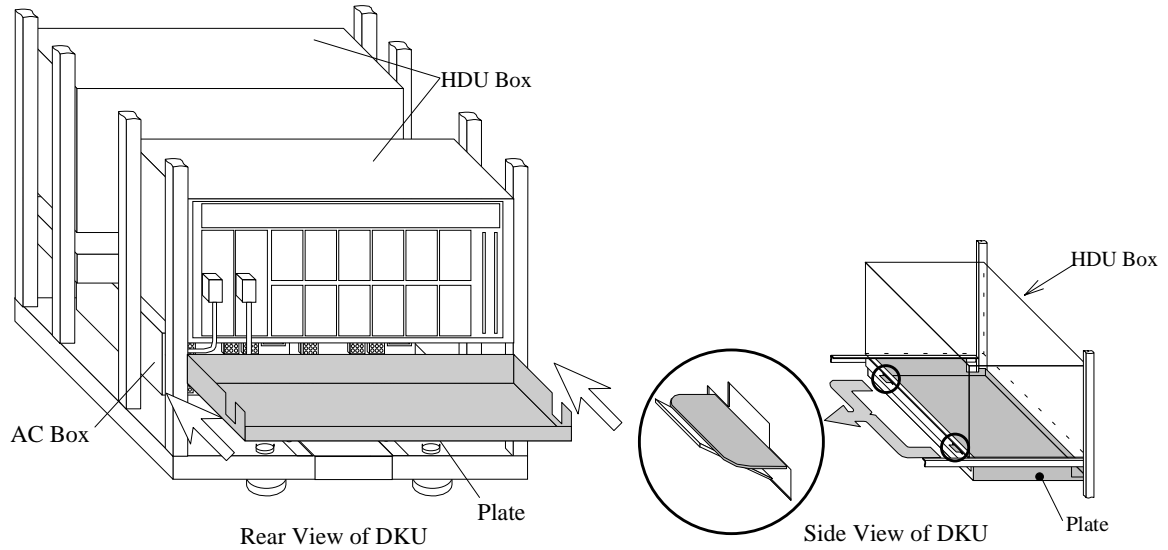


Fig. T18-24 Attachment of Plate

b. Secure the plate with the screws.

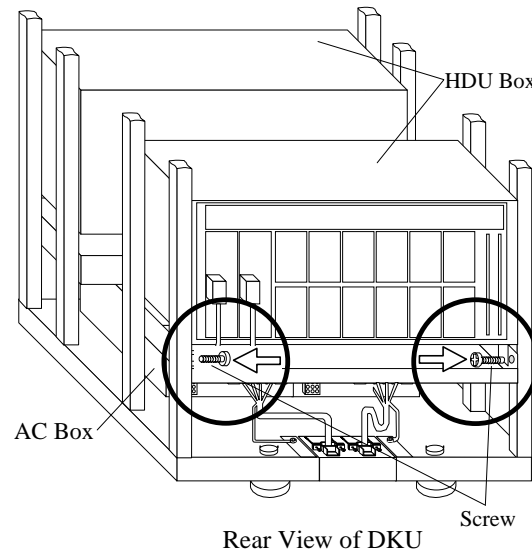


Fig. T18-25 Attachment of Plate

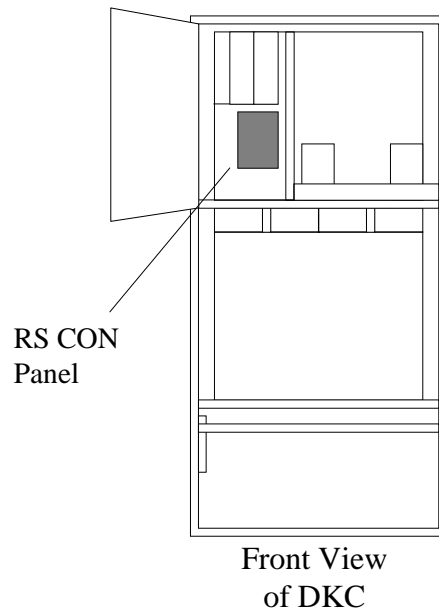
6. Power On the Replacement Component

- Turn on the circuit breaker on the power distribution panel that are connected to AC BOX.
- Turn on the circuit breaker on AC BOX.

7. Go to SVP post procedure t4 [\[REP04-610\]](#).

[HARDWARE T19]

Location	Function Name of Component		Part Name
Upper left front of DKC	1	RS CON (Connector) Panel	• SH195-A

**NOTICE:**

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of RS CON (Connector) Panel

1. The following figure shows the correct way to replace the RS CON.
 - a. Disconnect all cables from RS CON.
 - b. Slide the stopper and pull out the Connector.
 - c. Loosen two screws and remove RS CON.
 - d. Attach the RS CON and fasten two screws.
 - e. Attach the Connector and slide the stopper.
 - f. Connect all the cables.

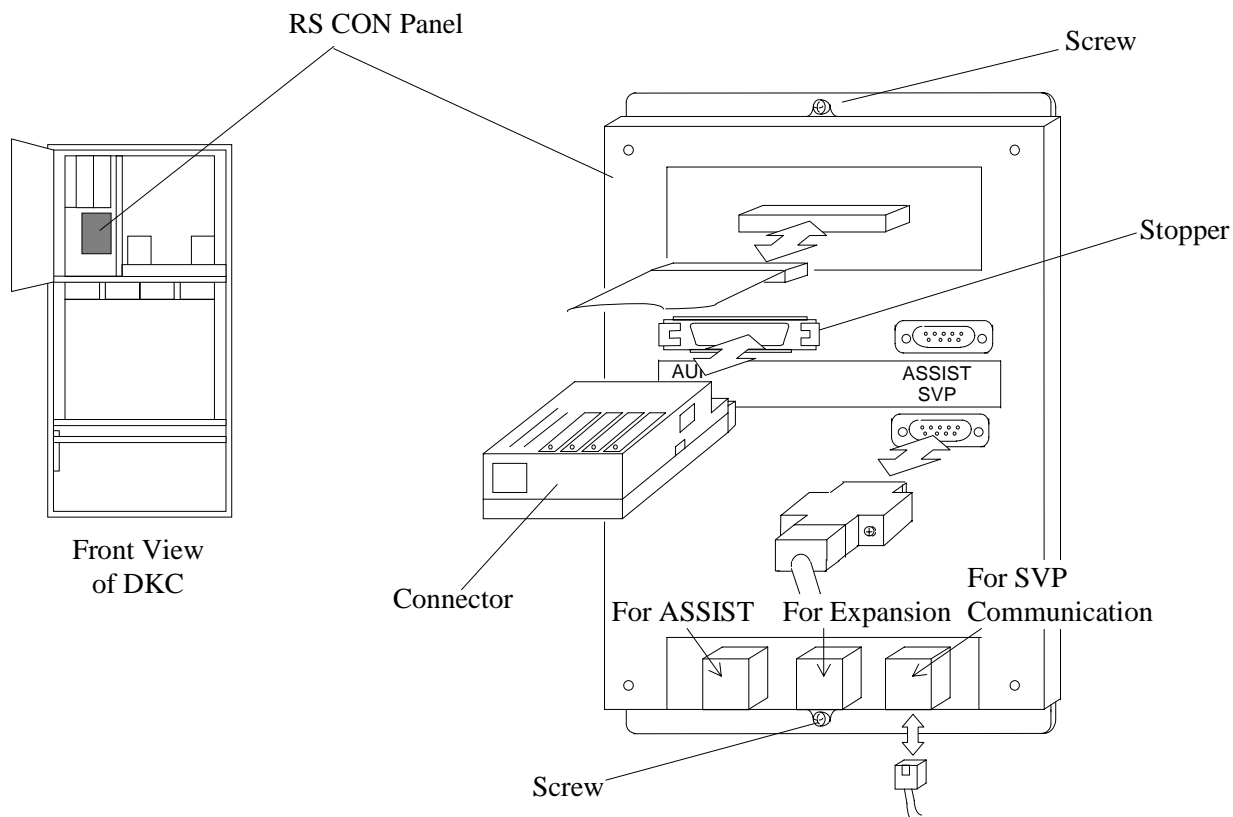
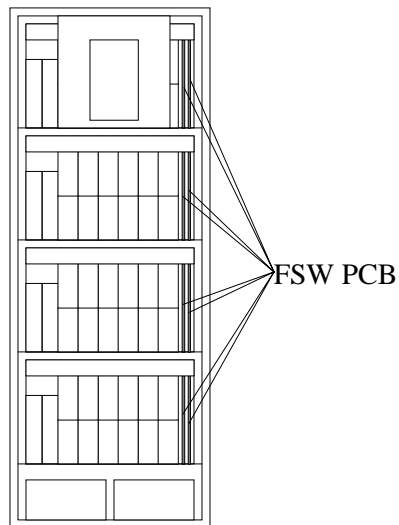


Fig. T19-1 Replacement of RS CON

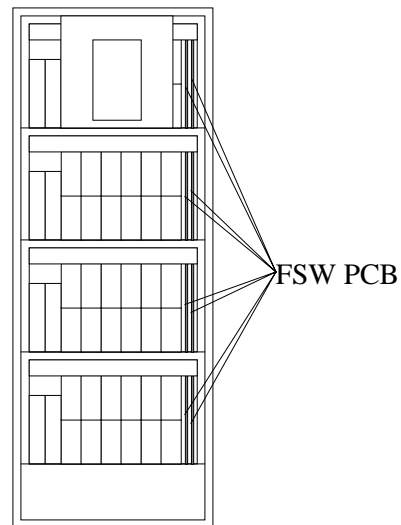
-
2. Go to SVP post procedure t1 [REP04-320].

[HARDWARE T20]

Location	Function Name of Component		Part Name
Front or Rear of DKU	1	FSW PCB	•SH217-A



Front View
of DKU



Rear View
of DKU

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

1. Loosen the screw and remove the cable cover ②. And then loosen the two screws and remove the cable cover ①.

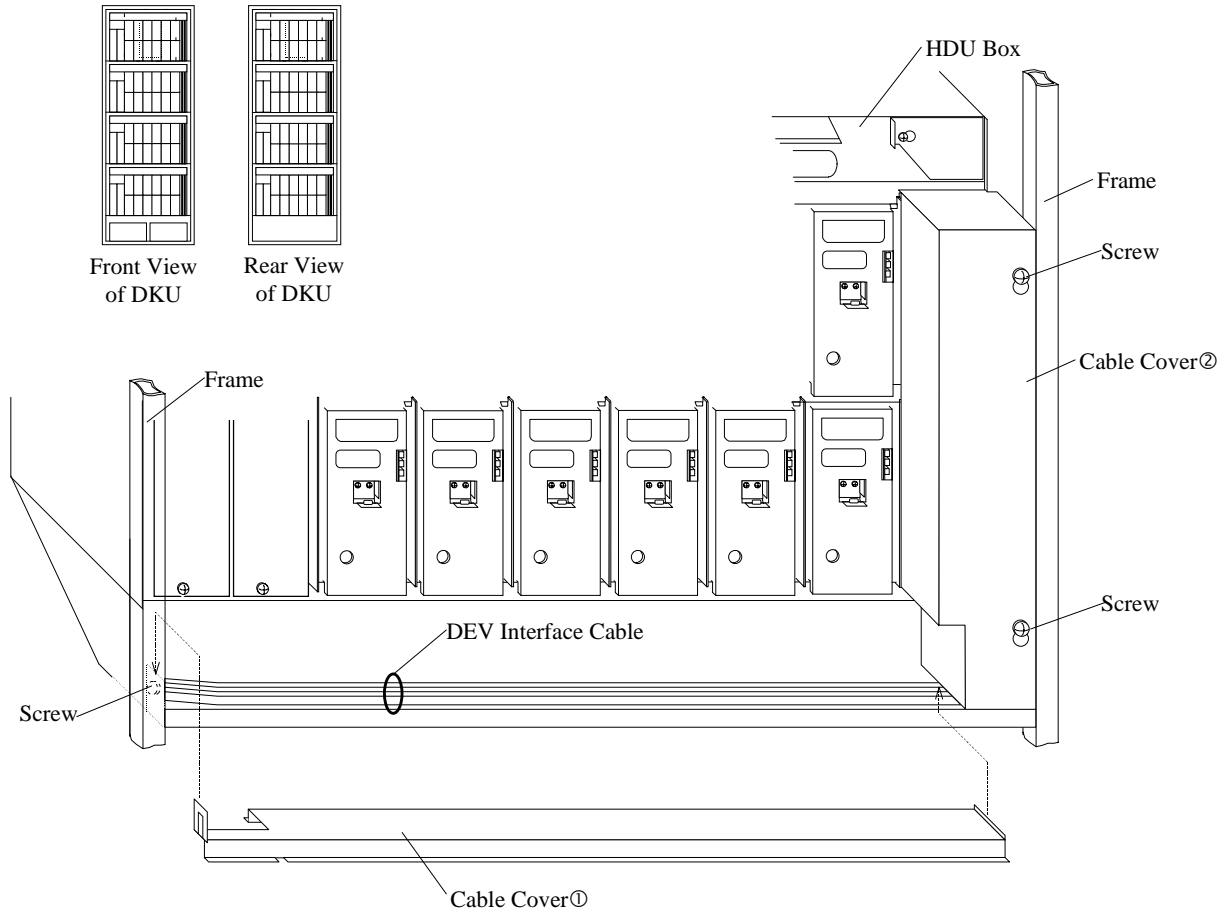


Fig. T20-1 Removal of Cable Covers

2. Check Shut Down LED on the FSW PCB.

! CAUTION

A system down is caused by a replacement of the FSW PCB other than that to be replaced. Make sure that it is the FSW PCB to be replaced.

3. Disconnect the DEV interface cables.
4. Loosen the screw and rotate the stopper.
5. Replace the FSW PCB.
6. Rotate the stopper and fasten the screw.
7. Connect the DEV interface cables.

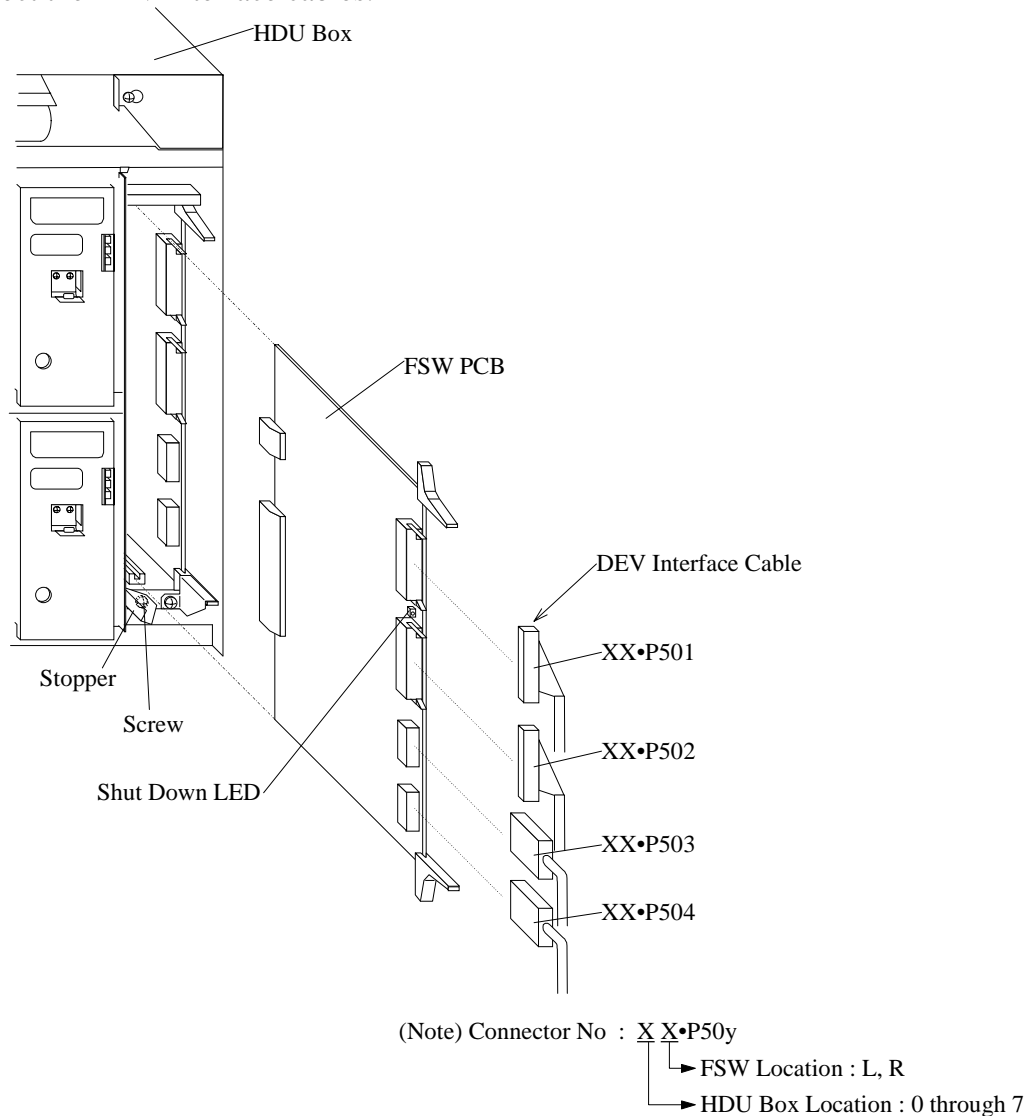
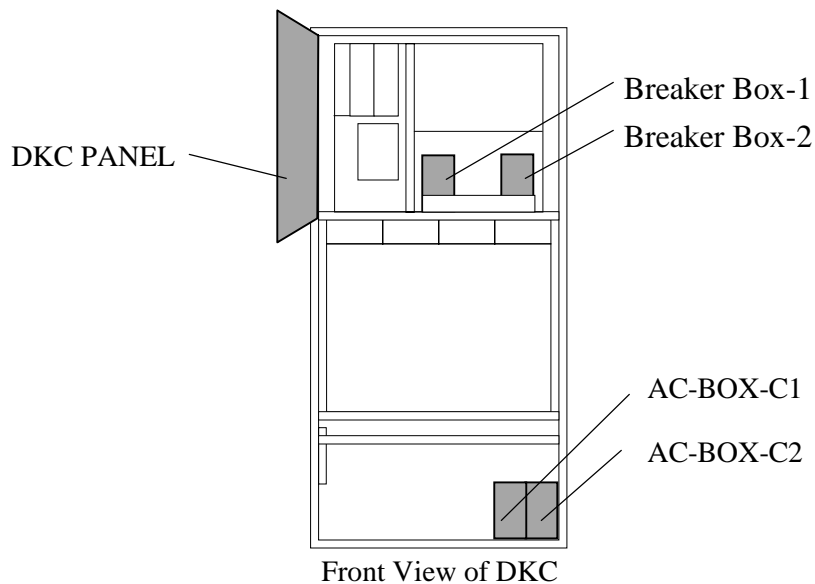


Fig. T20-2 Replacement of FSW PCB

8. Attach the cable covers ① and ② with the screws. Refer to Fig. T20-1.
9. Go to SVP post procedure j [\[REP04-270\]](#).

[HARDWARE T21]

Location	Function Name of Component		Part Name
Lower Front of DKC	1	AC BOX-C1 (DKC)	•AC BOX-C1
	2	AC BOX-C2 (DKC)	•AC BOX-C2
(Reference)			
The related parts for replacement of AC BOX-C1			
1. DKC PANEL PCB (Front Upside in DKC)			
2. Breaker Box-1 (Front Upside in DKC)			
3. Circuit breakers on the power distribution panel that are connected to the AC BOX-C1			
The related parts for replacement of AC BOX-C2			
1. DKC PANEL PCB (Front Upside in DKC)			
2. Breaker Box-2 (Front Upside in DKC)			
3. Circuit breakers on the power distribution panel that are connected to the AC BOX-C2			



NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of AC BOX-C1

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.

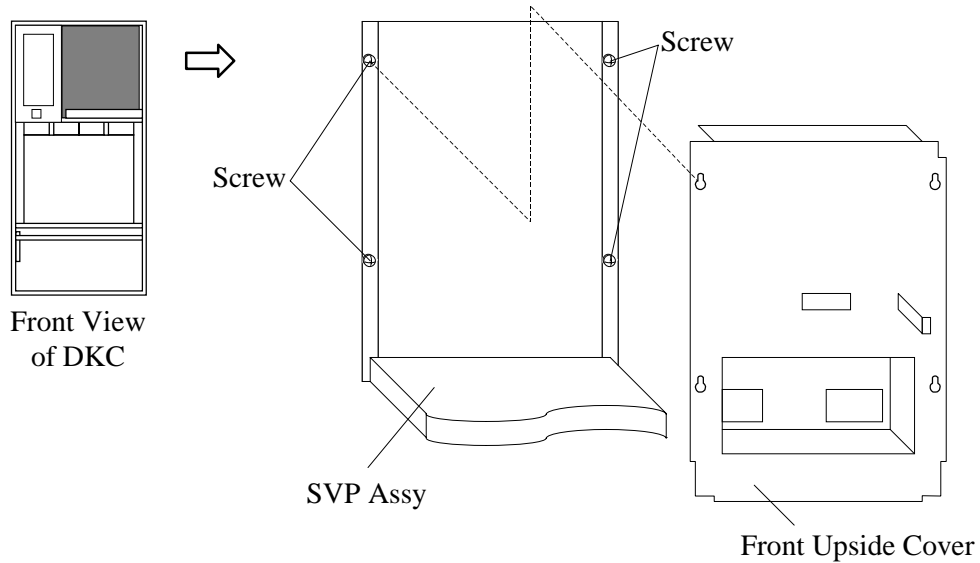


Fig. T21-1 Removal of Front Upside Covers

3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

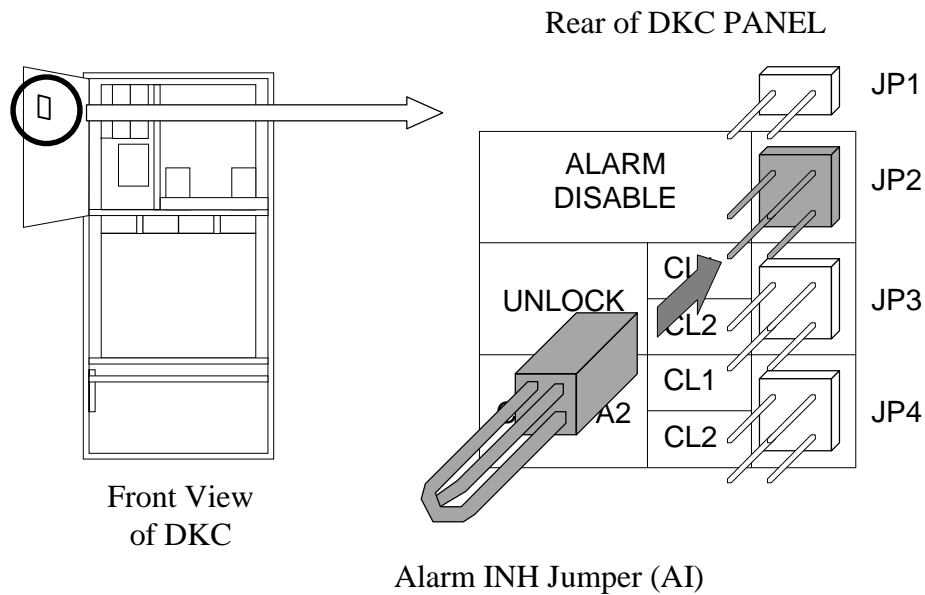


Fig. T21-2 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T21-1 Circuit Breakers to be Turned Off When Replacing AC BOX-C1

No.	Unit	Location No.	Breaker No.	Remarks
1	Disk Controller	Breaker Box-1	CB201	
2	Disk Controller	AC BOX-C1	CB200	
3	Circuit breakers on the power distribution panel in the plant that are connected to the AC BOX-C1.			Failure to turn off may result in an electric shock

- a. Turn off the circuit breaker (CB201) on Breaker Box-1 in the Disk Controller.

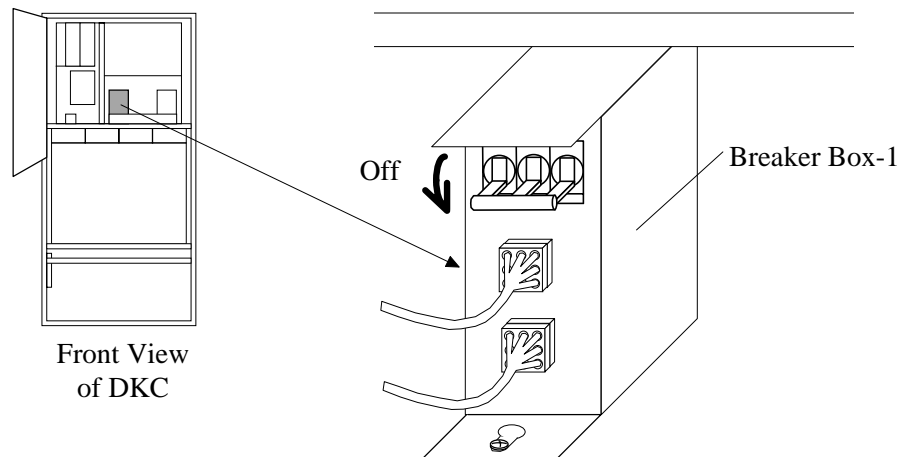


Fig. T21-3 Circuit Breaker to be Turned Off When Replacing AC BOX-C1

- b. Turn off the circuit breaker (CB200) on AC BOX-C1 in the Disk Controller.

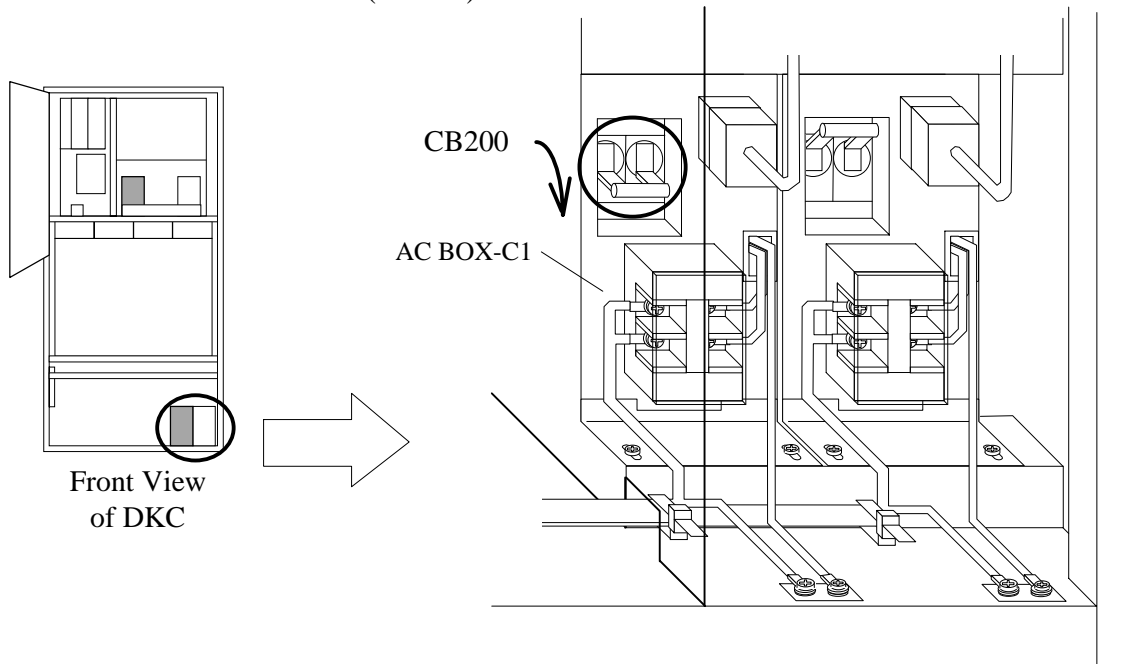


Fig. T21-4 Circuit Breakers to be Turned Off When Replacing AC BOX-C1

- c. Turn off the circuit breakers on the power distribution panel in the plant that are connected to AC BOX-C1.

! WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-C1.

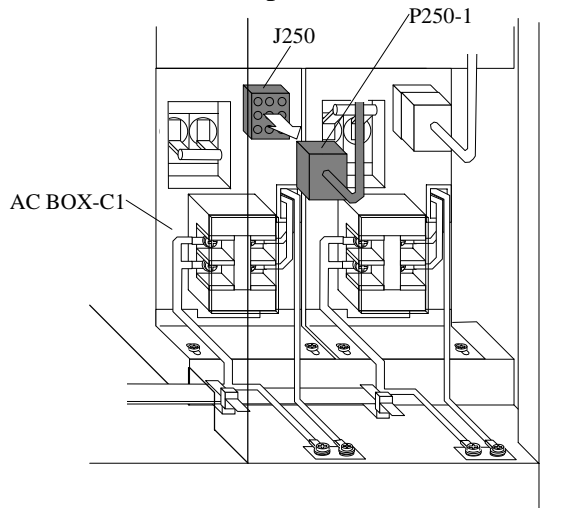
5. Removal of AC BOX-C1

WARNING

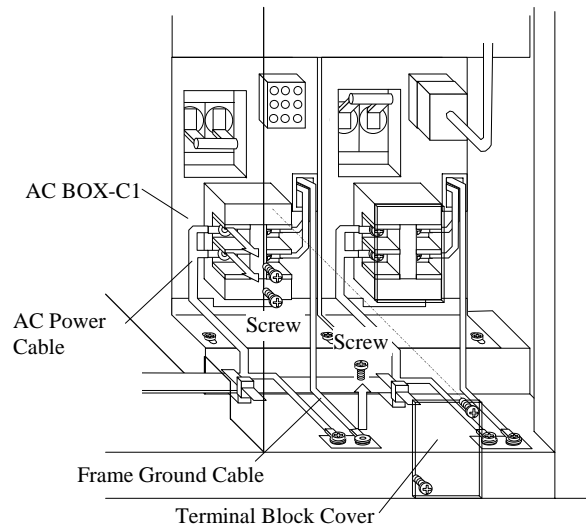
Warning: You will get an electric shock if you fail to turn it off.

Start your work after turning off the breaker on the distribution board connected to the AC BOX-C1.

- a. Disconnect the cable connector P250-1 from AC BOX-C1.
- b. Remove the terminal block cover from AC BOX-C1. Remove the three screws, and then disconnect the AC power cable and frame ground cable.



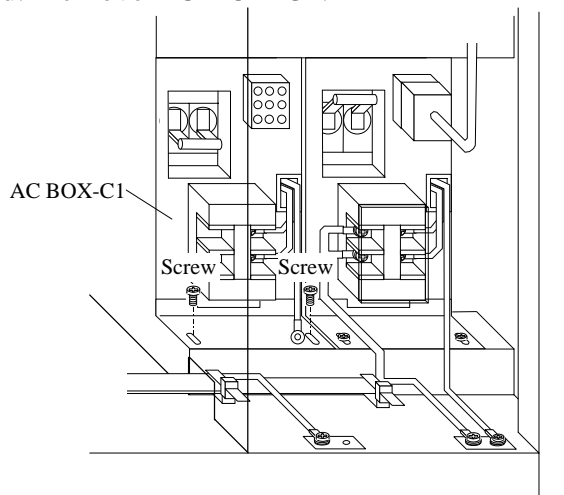
(1) Removal of Cable Connector



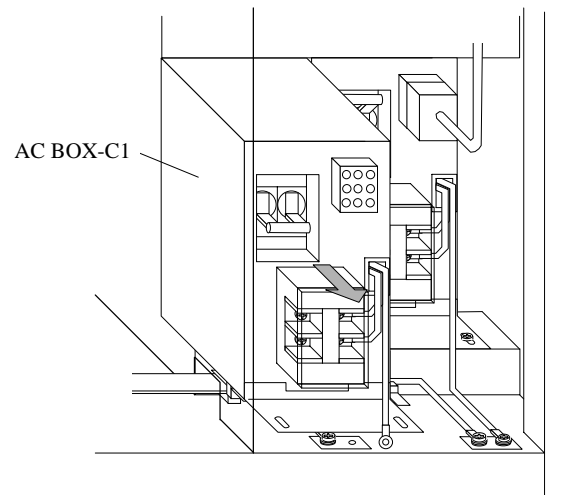
(2) Disconnection of AC Power Cable

Fig. T21-5 Removal of Cable Connector

- c. Remove the two screws.
- d. Remove AC BOX-C1.



(3) Removal of Screws



(4) Removal of AC BOX-C1

Fig. T21-6 Removal of AC BOX-C1

6. Installation of Spare AC BOX-C1

- Check that the circuit breaker (CB200) on the spare AC BOX-C1 are turned off.
- Attach the spare AC BOX-C1.
- Secure AC BOX-C1 at the front with the screws.

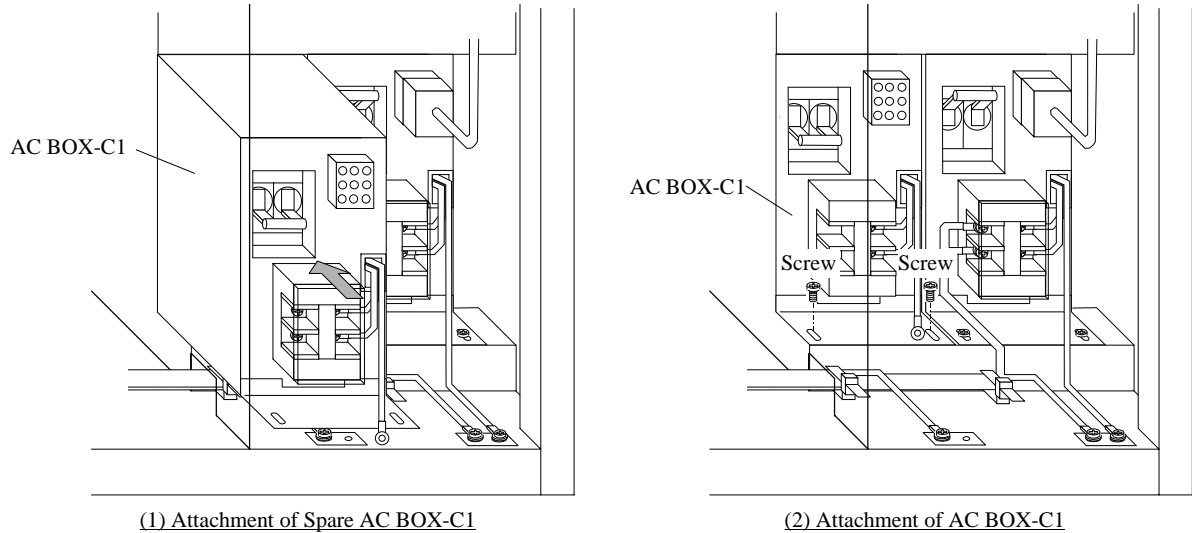


Fig. T21-7 Attachment of AC BOX-C1

- Connect the frame ground cable to the frame ground.
- Connect the AC power cable to the terminal block. Attach the terminal block cover with the two screws.

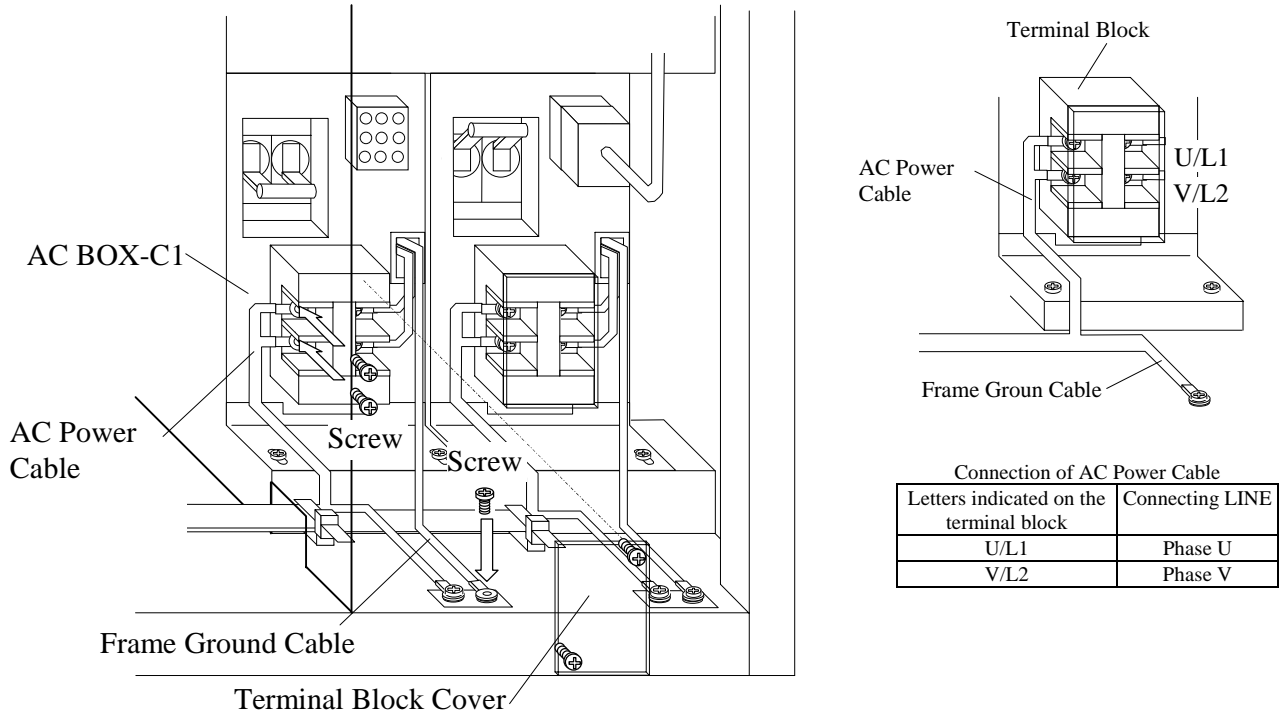


Fig. T21-8 Connection of AC Power Cable

- f. Connect the cable connector P250-1 to AC BOX-C1.

Table T21-2 Cable Connection of AC BOX-C1

No.	Cable No.	AC Box	Remarks
1	P250-1	J250	

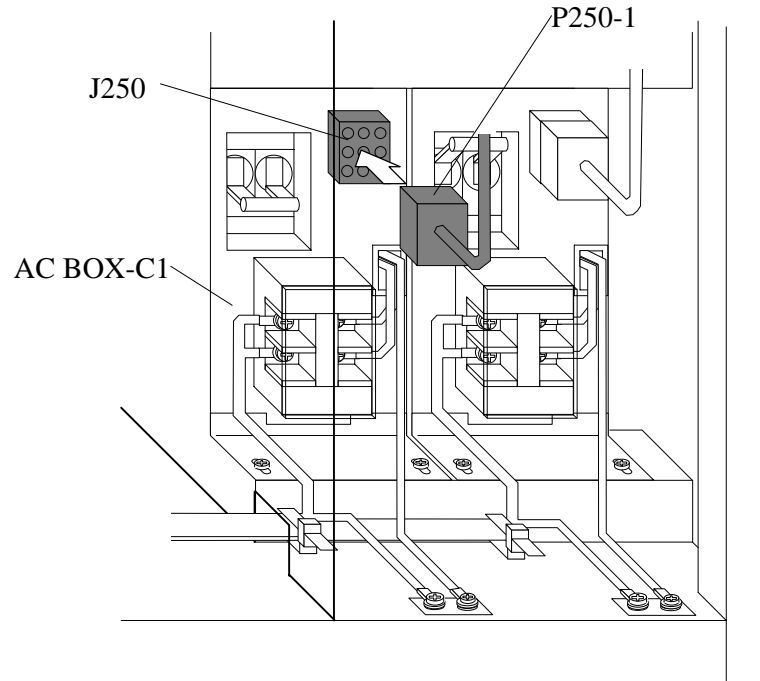


Fig. T21-9 Connection of Cable Connector

7. Power On the Replacement Component

- Turn on the circuit breakers on the power distribution panel that are connected to AC BOX-C1.
- Turn on all the circuit breakers on AC BOX-C1.
- Turn on all the circuit breakers on Breaker Box-1.
- Turn “LED TEST / CHK RST” switch on the DKC panel to “CHK RST”.

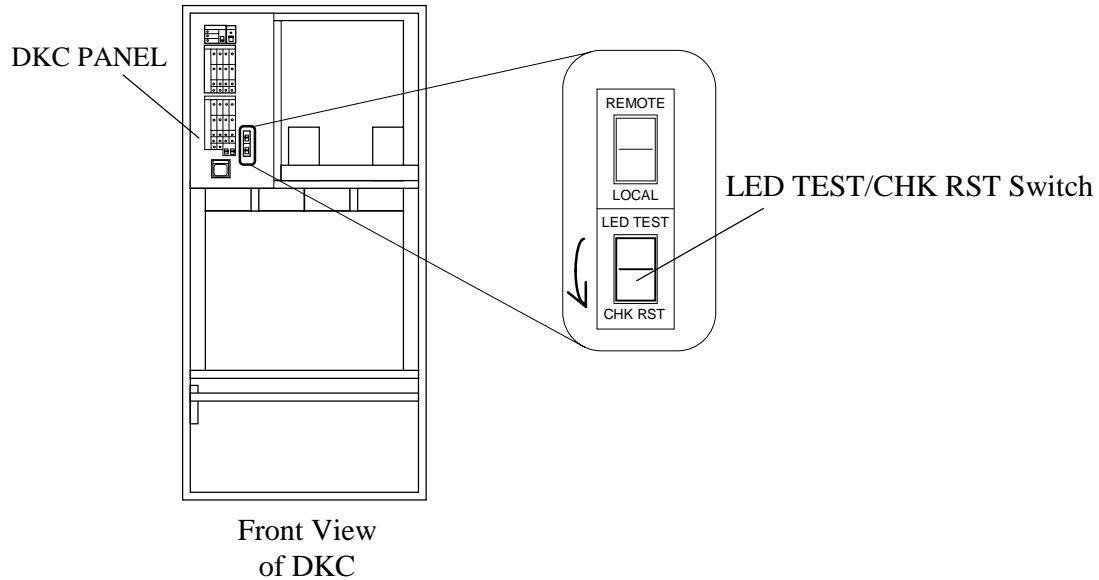


Fig. T21-10 Setting of LED TEST / CHK RST Switch

8. Disconnection of the Jumper

- Disconnect the Alarm INH Jumpers from the connectors on the DKC Panel PCB.

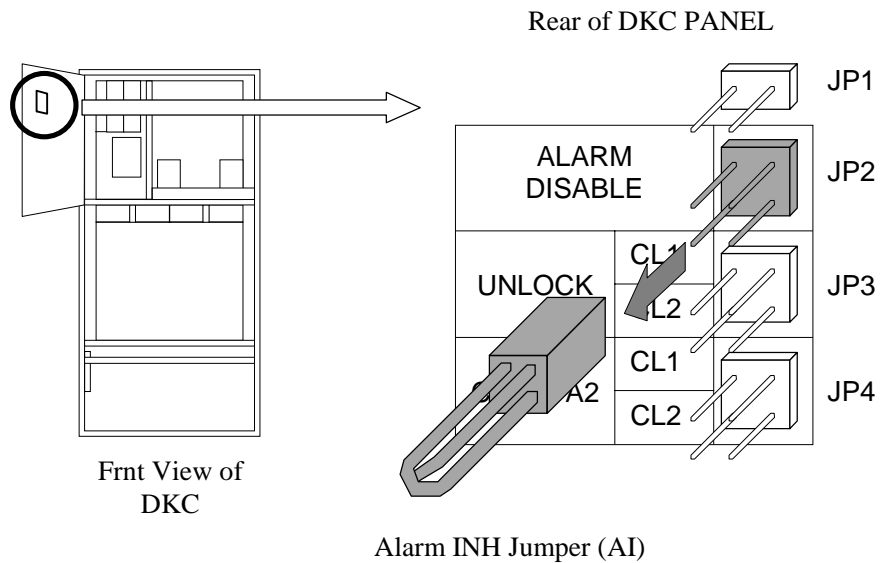


Fig. T21-11 Disconnection of Jumper

9. Go to SVP post-procedure t3 [\[REP04-570\]](#).

Replacement of AC BOX-C2

1. Open the front door and then open the DKC panel.
2. Open the SVP Assy and remove the Front Upside Cover.
 - a. Loosen the four screws.
 - b. Remove the Front Upside Cover.

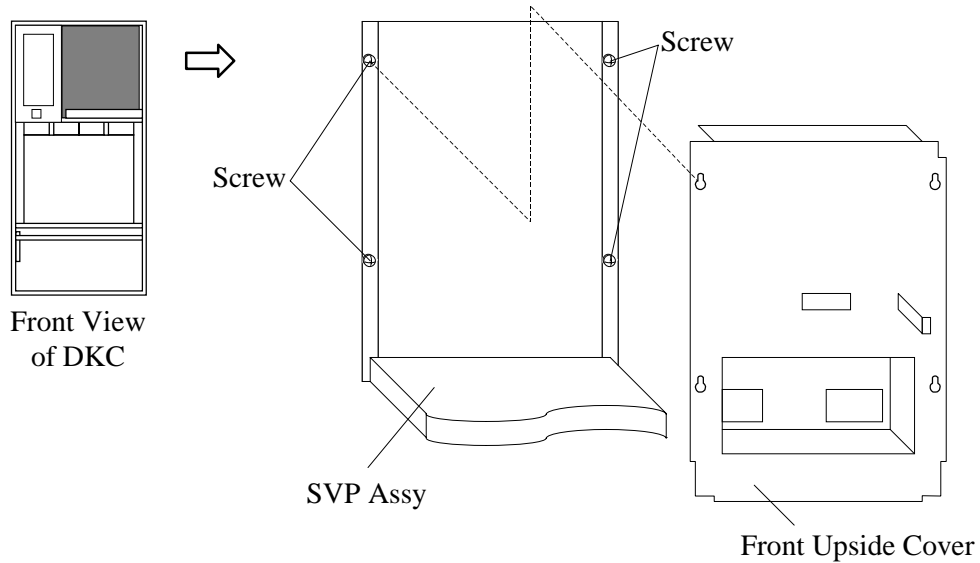


Fig. T21-12 Removal of Front Upside Covers

3. Connection of the Jumper
 - a. Connect the Alarm INH Jumper to the connector on the DKC Panel PCB.

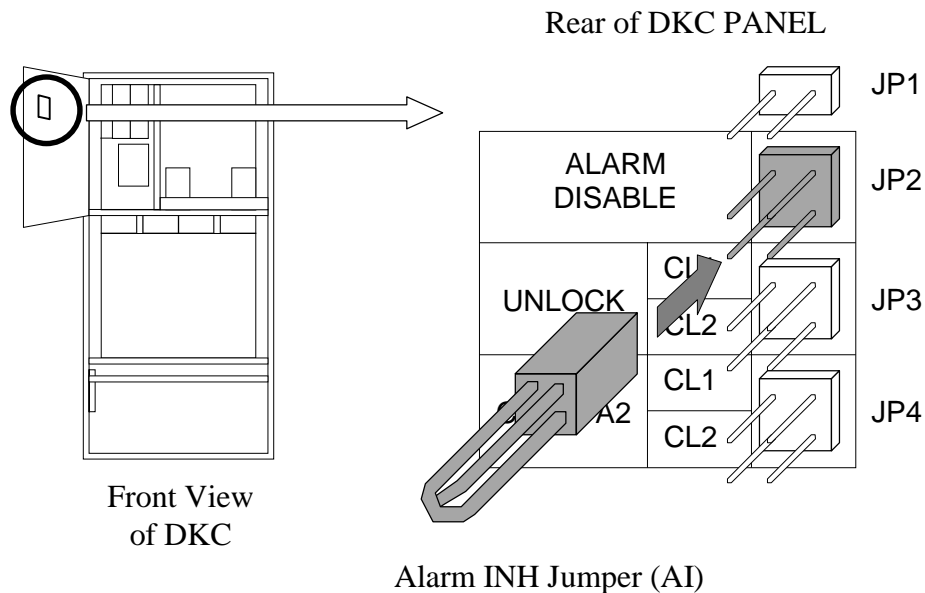


Fig. T21-13 Connection of Alarm INH Jumper

4. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

Table T21-3 Circuit Breakers to be Turned Off When Replacing AC BOX-C2

No.	Unit	Location No.	Breaker No.	Remarks
1	Disk Controller	Breaker Box-2	CB201	
2	Disk Controller	AC BOX-C2	CB200	
3	Circuit breakers on the power distribution panel in the plant that are connected to the AC BOX-C2.			Failure to turn off may result in an electric shock

- a. Turn off the circuit breaker (CB201) on Breaker Box-2 in the Disk Controller.

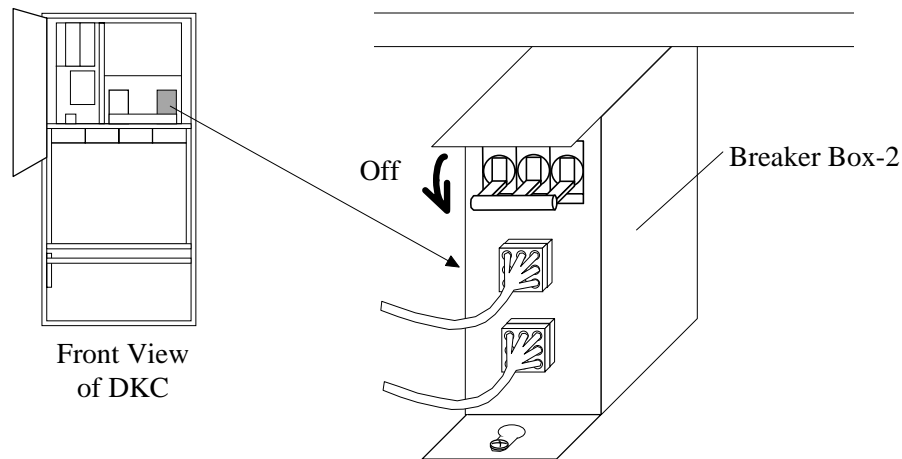


Fig. T21-14 Circuit Breaker to be Turned Off When Replacing AC BOX-C2

- b. Turn off the circuit breaker (CB200) on AC BOX-C2 in the Disk Controller.

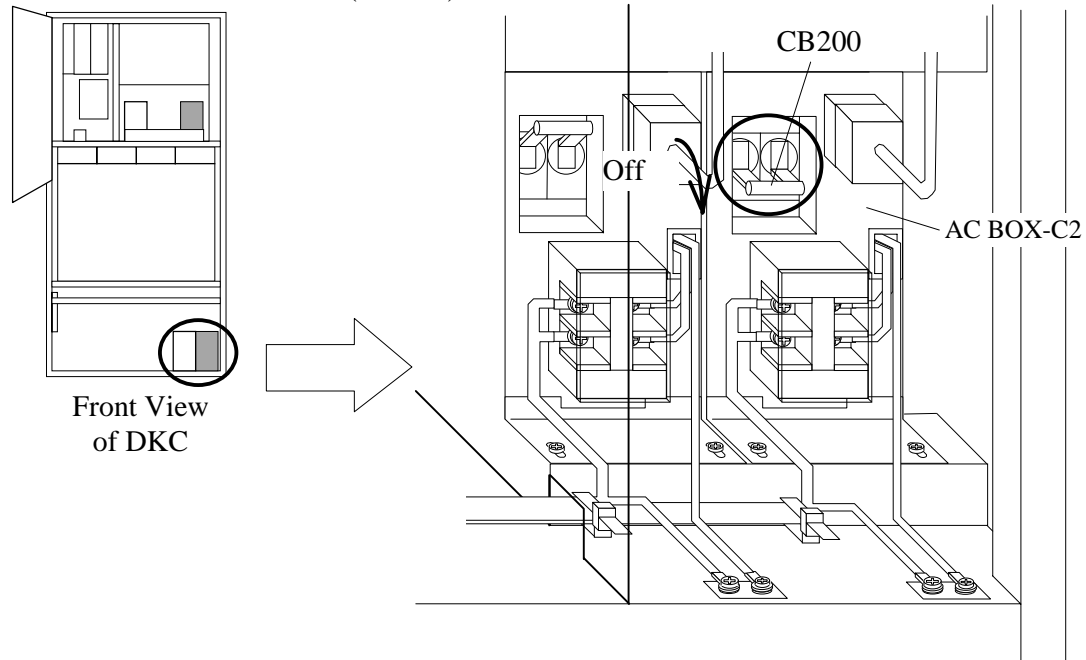


Fig. T21-15 Circuit Breakers to be Turned Off When Replacing AC BOX-C2

- c. Turn off the circuit breakers on the power distribution panel in the plant that are connected to AC BOX-C2.

WARNING

Warning: You will get an electric shock if you fail to turn it off.
Start your work after turning off the breaker on the distribution board connected to the AC BOX-C2.

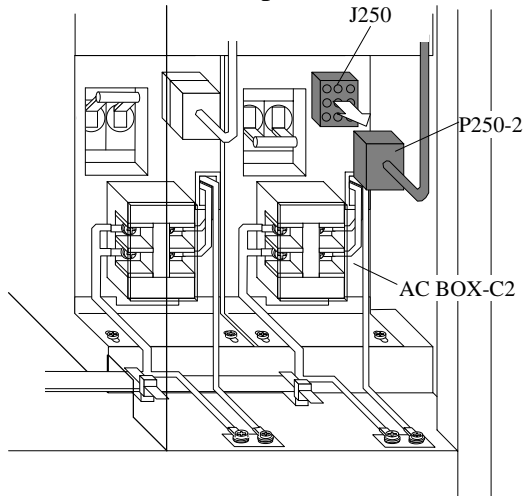
5. Removal of AC BOX-C2

WARNING

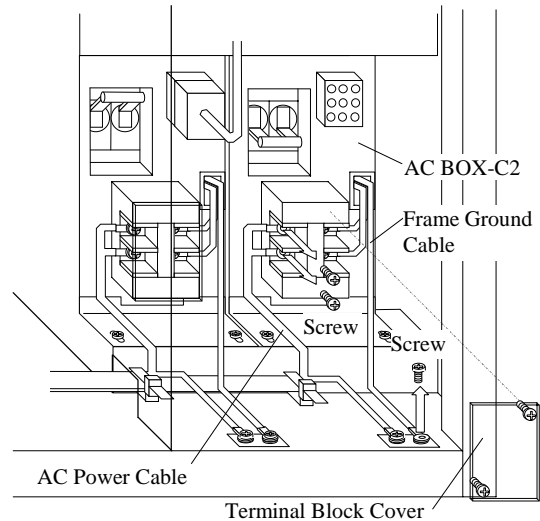
Warning: You will get an electric shock if you fail to turn it off.

Start your work after turning off the breaker on the distribution board connected to the AC BOX-C2.

- a. Disconnect the cable connector P250-2 from AC BOX-C2.
- b. Remove the terminal block cover from AC BOX-C2. Remove the three screws, and then disconnect the AC power cable and frame ground cable.



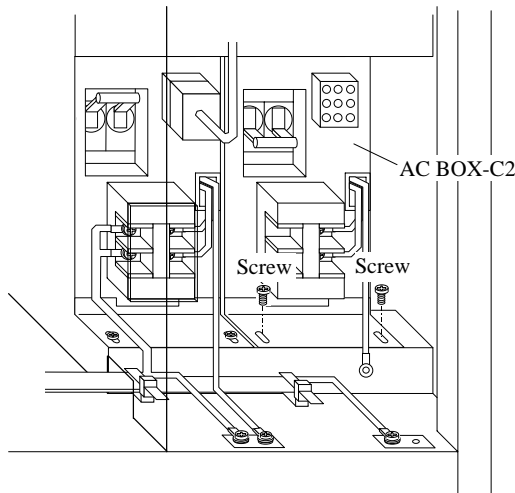
(1) Removal of Cable Connector



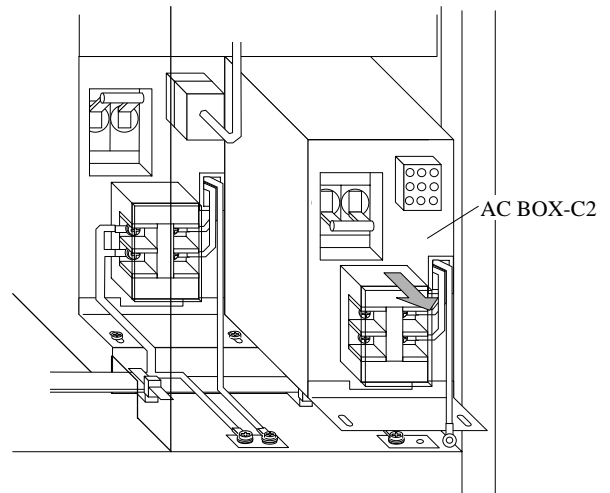
(2) Disconnection of AC Power Cable

Fig. T21-16 Removal of Cable Connector

- c. Remove the two screws.
- d. Remove AC BOX-C2.



(3) Removal of Screws



(4) Removal of AC BOX-C2

Fig. T21-17 Removal of AC BOX-C2

6. Installation of Spare AC BOX-C2

- a. Check that the circuit breaker (CB200) on the spare AC BOX-C2 are turned off.
- b. Attach the spare AC BOX-C2.
- c. Secure AC BOX-C2 at the front with the screws.

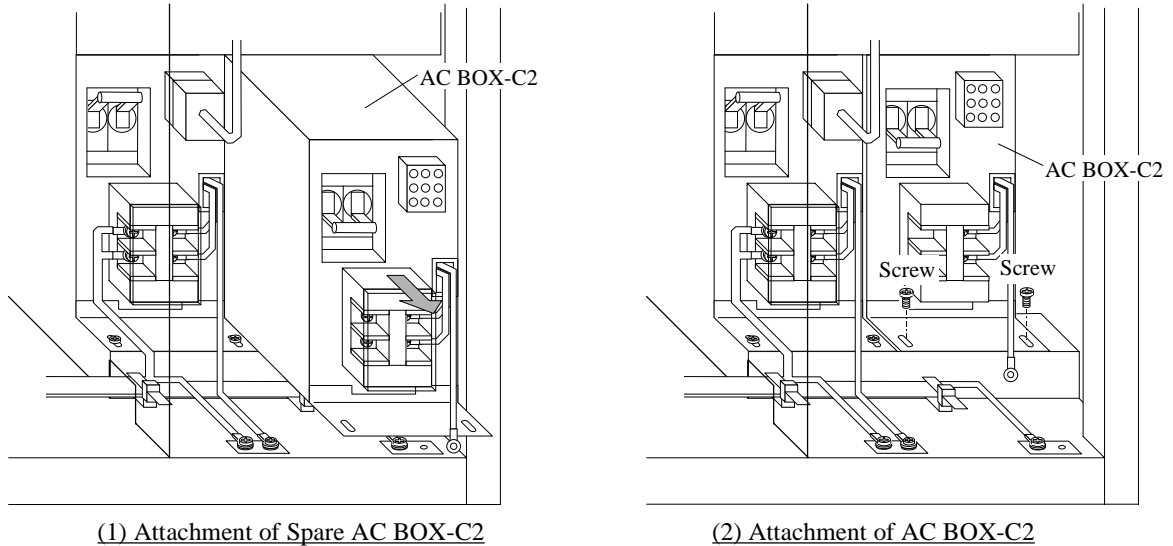


Fig. T21-18 Attachment of AC BOX-C2

- d. Connect the frame ground cable to the frame ground.
- e. Connect the AC power cable to the terminal block. Attach the terminal block cover with the two screws.

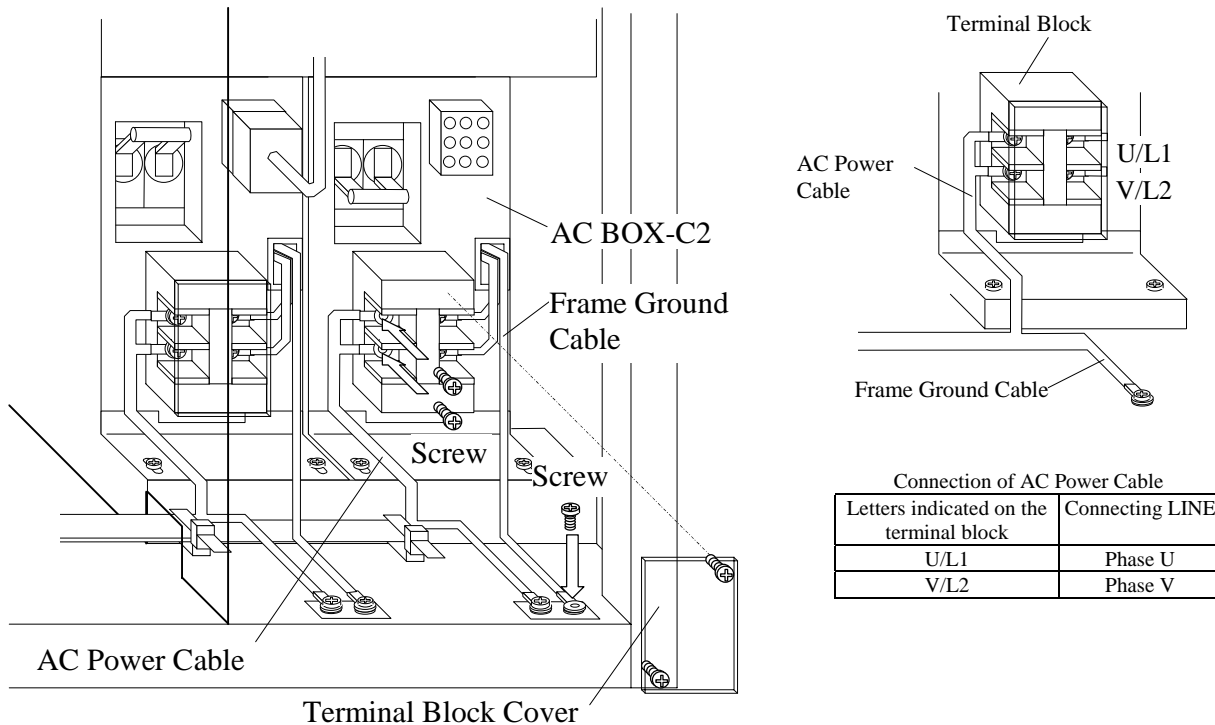


Fig. T21-19 Connection of AC Power Cable

- f. Connect the cable connector P250-2 to AC BOX-C2.

Table T21-2 Cable Connection of AC BOX-C2

No.	Cable No.	AC Box	Remarks
1	P250-2	J250	

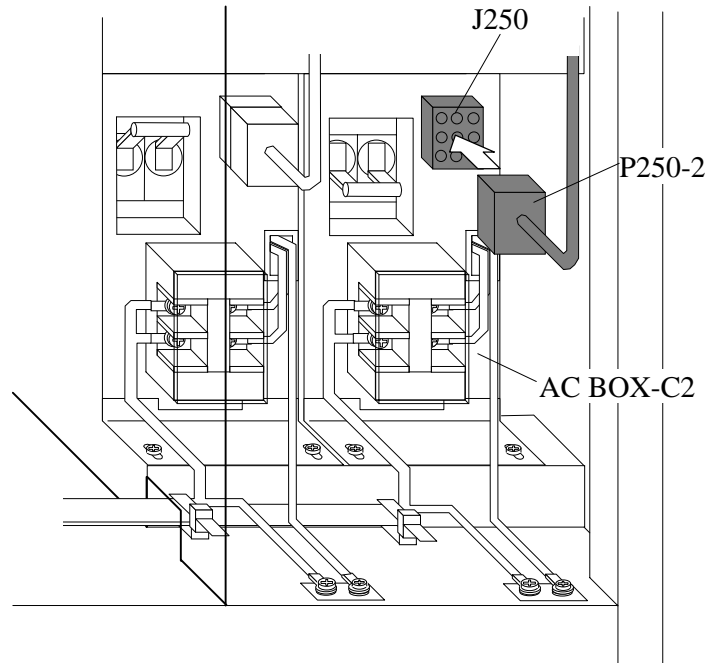


Fig. T21-20 Connection of Cable Connector

7. Power On the Replacement Component

- Turn on the circuit breakers on the power distribution panel that are connected to AC BOX-C2.
- Turn on all the circuit breakers on AC BOX-C2.
- Turn on all the circuit breakers on Breaker Box-2.
- Turn “LED TEST / CHK RST” switch on the DKC panel to “CHK RST”.

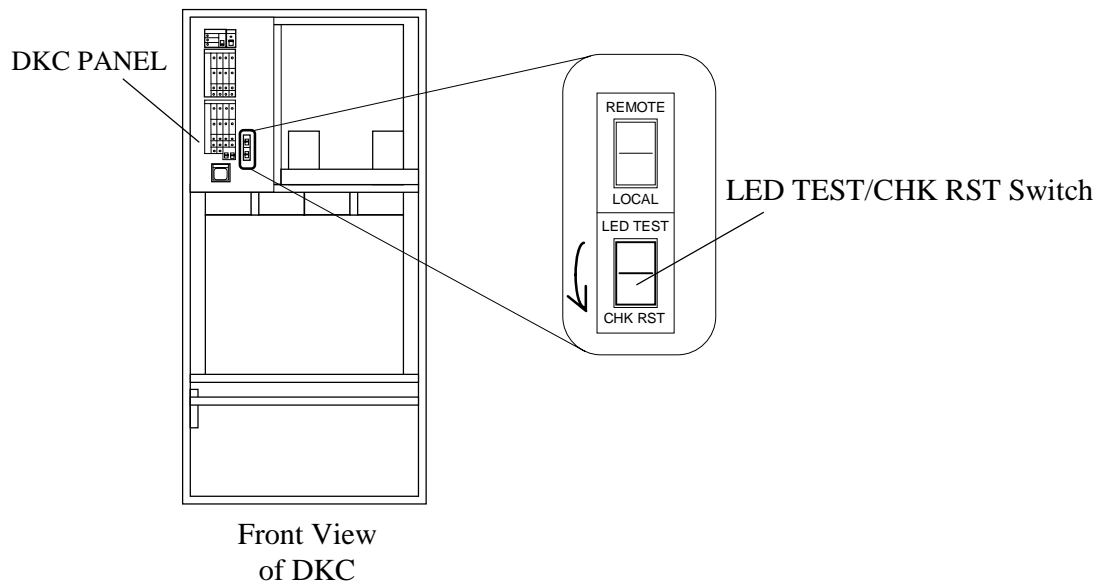


Fig. T21-21 Setting of LED TEST / CHK RST Switch

8. Disconnection of the Jumper

- Disconnect the Alarm INH Jumpers from the connectors on the DKC Panel PCB.

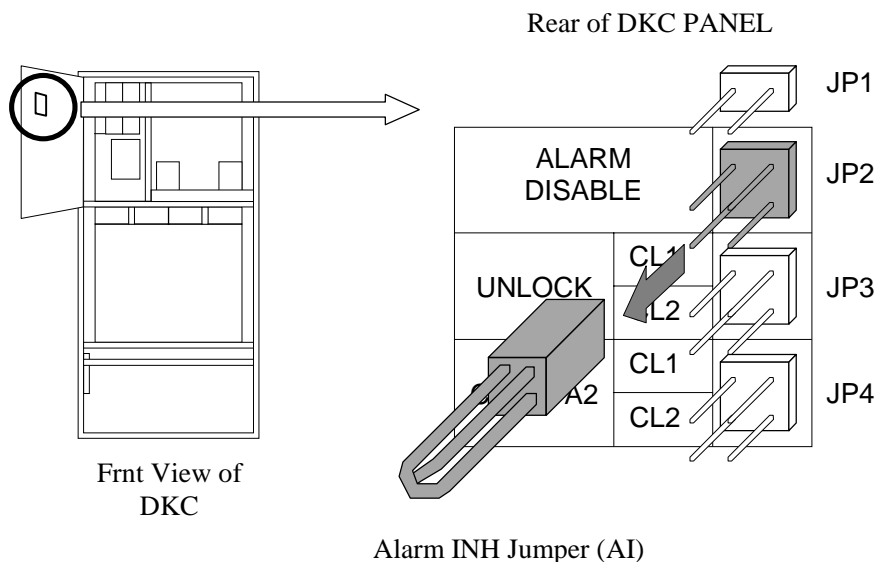
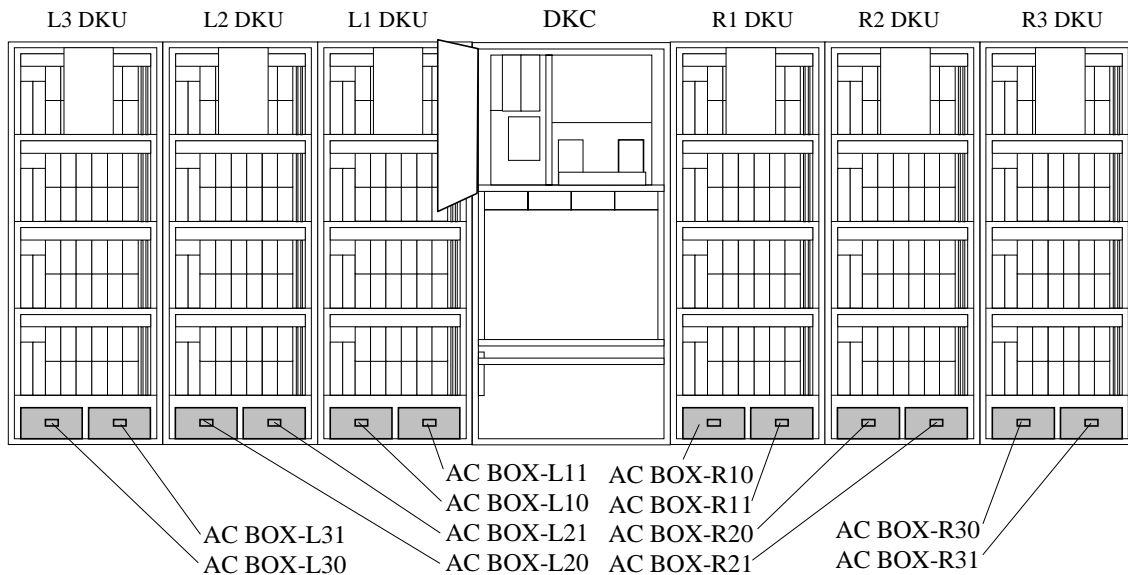


Fig. T21-22 Disconnection of Jumper

9. Go to SVP post-procedure t3 [\[REP04-570\]](#).

[HARDWARE T22]

Location	Function Name of Component		Part Name
Lower of DKU	1	DKU AC BOX (1 Phase type)	• AC BOX-R10
	2		• AC BOX-R11
	3		• AC BOX-R20
	4		• AC BOX-R21
	5		• AC BOX-R30
	6		• AC BOX-R31
	7		• AC BOX-L10
	8		• AC BOX-L11
	9		• AC BOX-L20
	10		• AC BOX-L21
	11		• AC BOX-L30
	12		• AC BOX-L31
(Reference)			
The related parts for replacement of DKU AC BOX			
1. Circuit breakers on the power distribution panel that are connected to the DKU AC BOX			



Front View

NOTICE:

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will ensure that the IC and LSI on the PCB are protected from static electricity.

Replacement of AC BOX (1 Phase)

1. Power Off the Component to be Replaced

WARNING

Be Careful of Electric Shock

- The power to the device is still on after turning off the breakers shown below.
- The device may be powered off when turning off the breakers not shown below.
- The circuit has residual voltage for one minute after turning off the breakers, so be sure to disconnect all the connectors after this period.

- a. Turn off the circuit breakers for the AC Box to be replaced (CB101, CB102, and CB103).

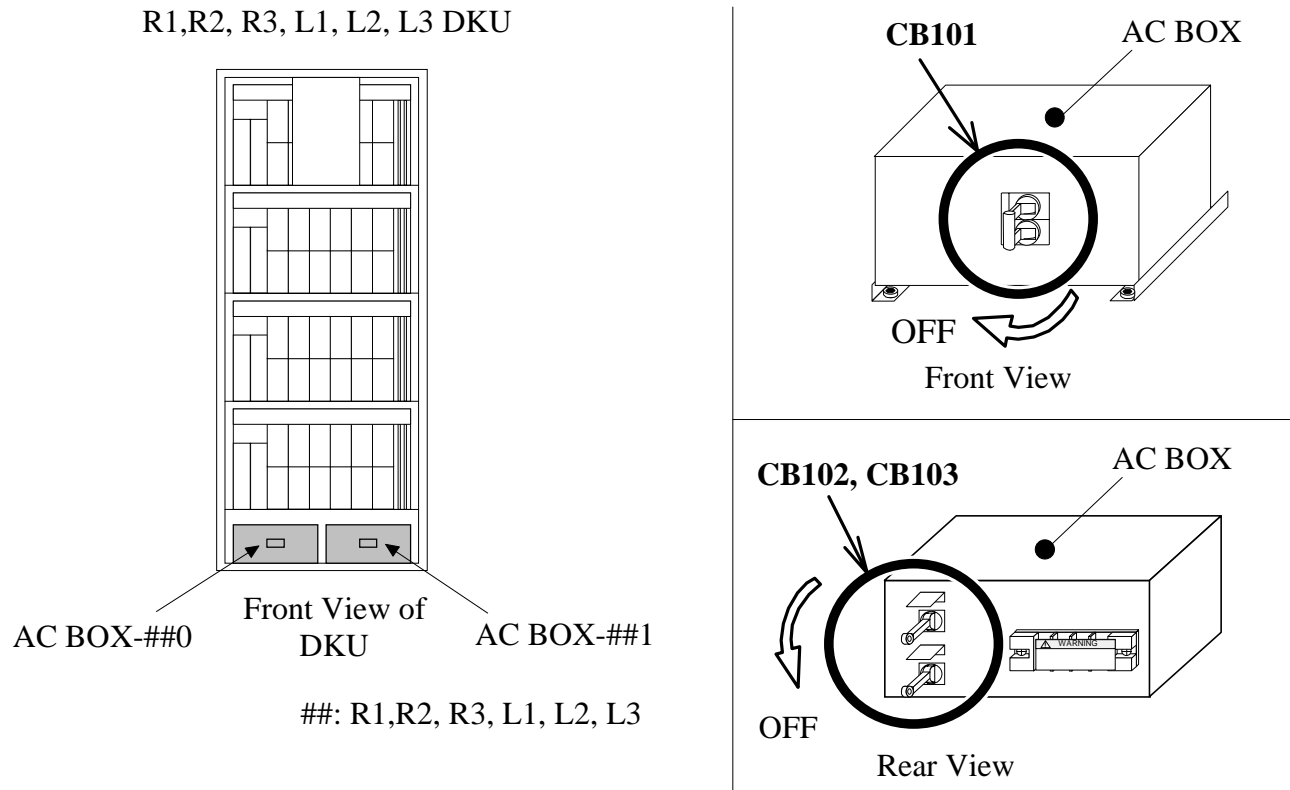


Fig. T22-1 AC BOX Location

- b. Turn off the circuit breakers on the power distribution panel in the plant that are connected to the AC Box to be replaced.

WARNING

You will get an electric shock if you fail to turn it off.

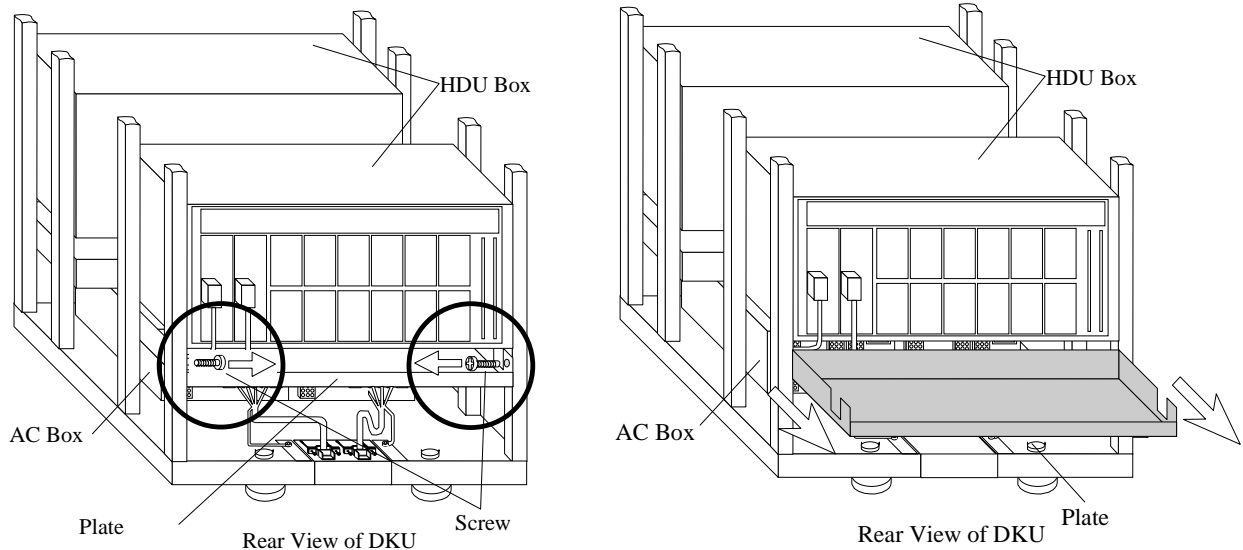
2. Removal of Plate

WARNING

Be Careful of Electric Shock

- Be sure to turn off the breaker on the power distribution panel connected to replaced DKU AC BOX.

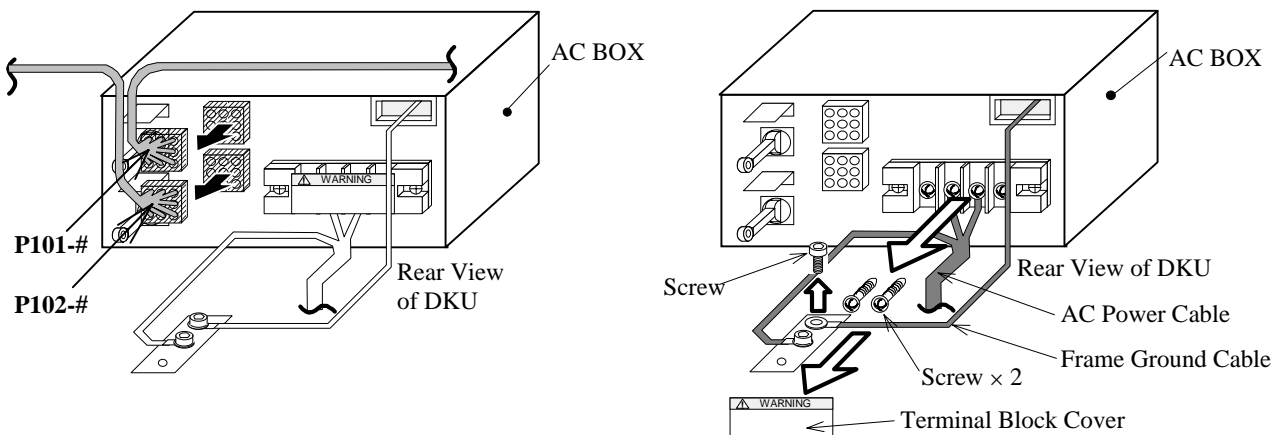
- Remove the two screws.
- Slide the plate toward the rear side to remove it.



T22-2 Removal of Plate

3. Removal of AC BOX

- Disconnect the cable connectors P101-# and P102-# from the AC Box to be replaced.
- Remove the terminal block cover and disconnect the AC power cable and Frame Ground Cable.



Disconnection of Cable Connectors

Disconnection of AC Power Cable

Fig. T22-3 Disconnection of Cable Connectors and AC Power Cable

- e. Remove the two screws from the front panel of the AC BOX to be replaced.
- f. Slide the AC BOX to be replaced backward and pull it out.

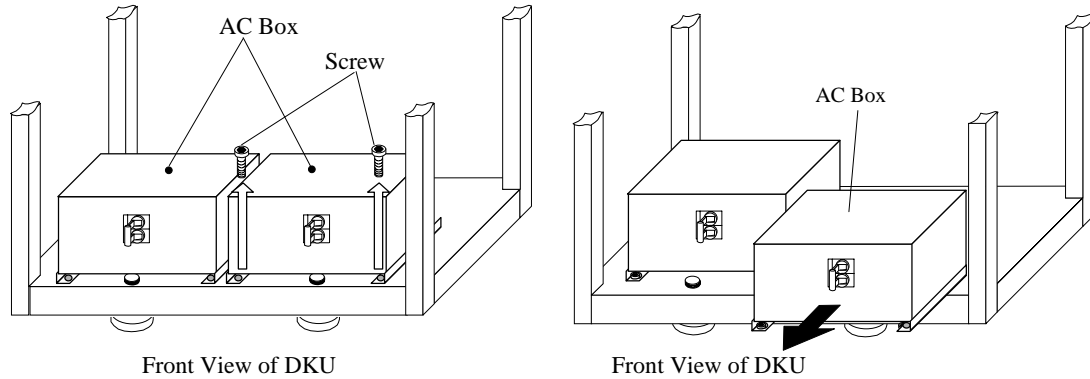


Fig. T22-4 Removal of AC BOX

4. Spare AC Box Installation

- a. Check that the circuit breakers (CB101, CB102, CB103) on the spare AC Box are turned off.
- b. Slide the replacement AC BOX from the front to the rear.

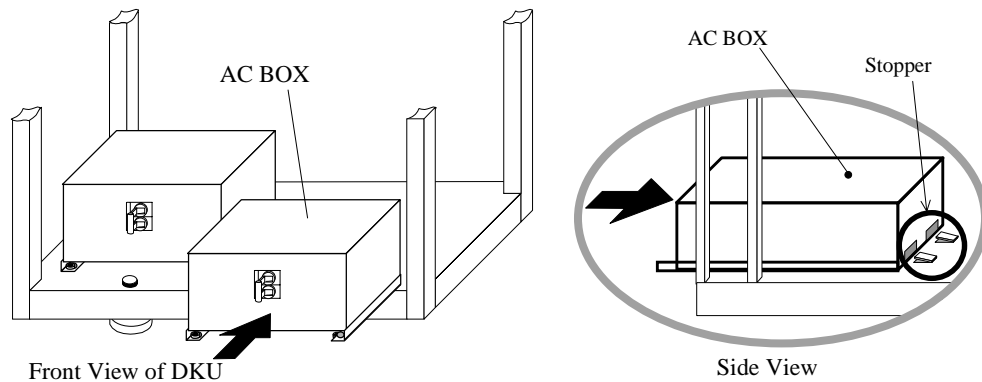


Fig. T22-5 Spare AC BOX Installation

- c. Secure the replacement AC BOX at the front side with the screws.

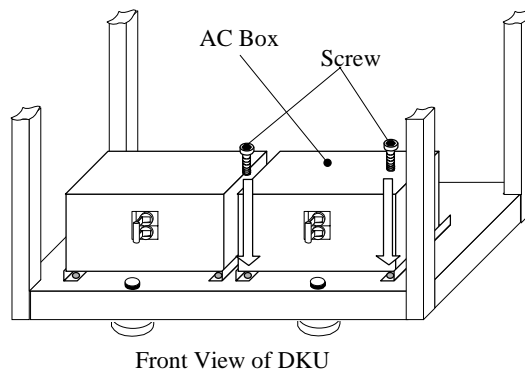


Fig. T22-6 Spare AC BOX Installation

- d. Connect the Frame Ground Cable to the frame ground and AC power cable to the terminal block. Attach the terminal block cover.

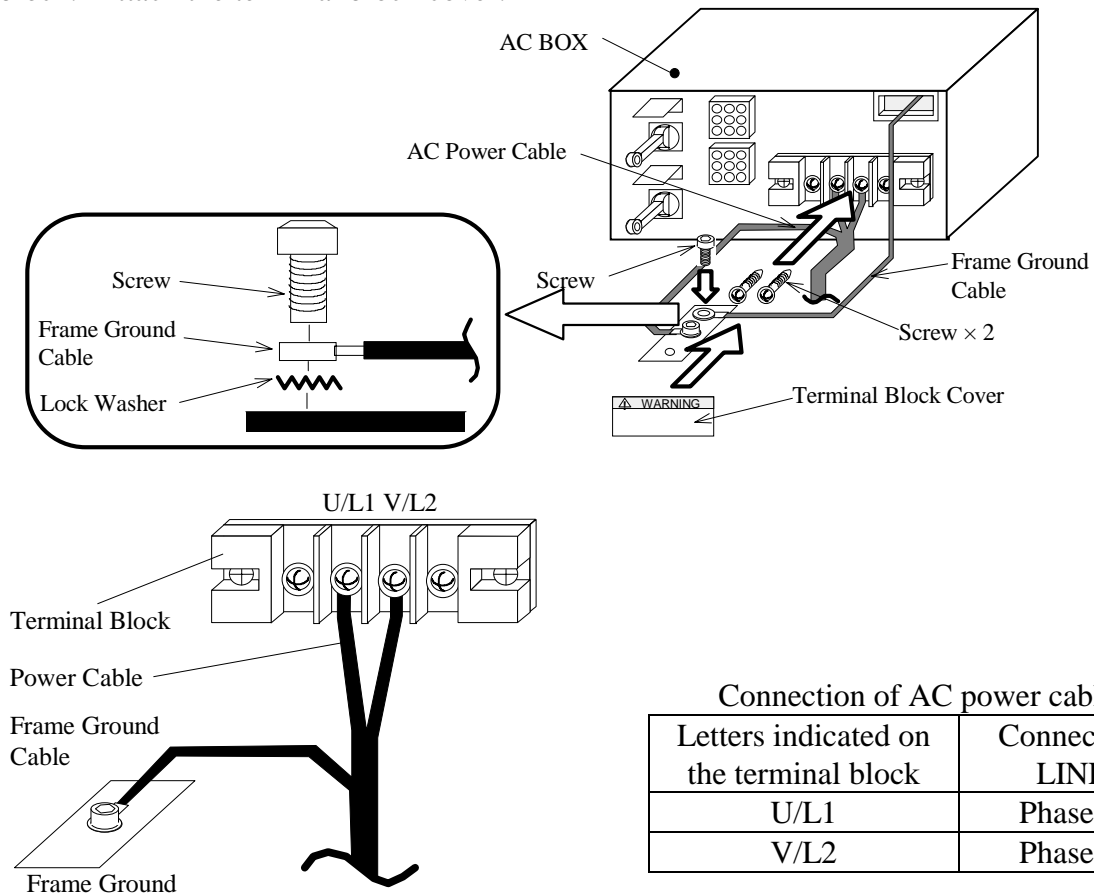


Fig. T22-7 Connection of AC Power Cable

- e. Connect the cables connectors to AC BOX.

Table T22-3 DKU AC BOX Cables

No.	Cable No.	Connector No.	Remarks
1	P101-#	J101	
2	P102-#	J102	

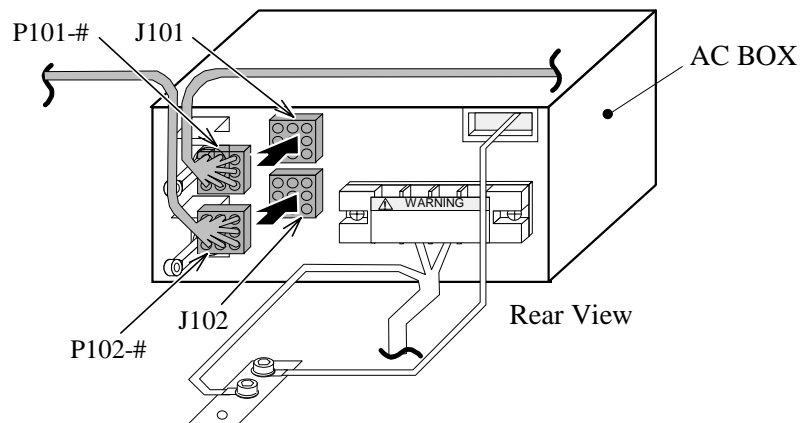


Fig. T22-8 Connection of Cable Connectors

5. Attachment of Plate

f. Attach the plate.

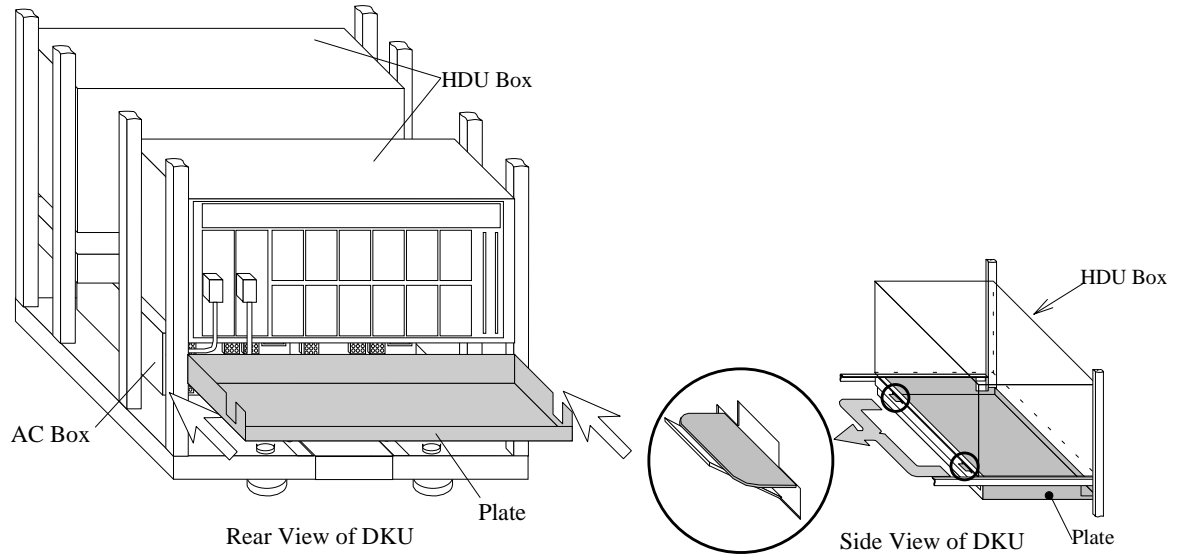


Fig. T22-9 Attachment of Plate

g. Secure the plate with the screws.

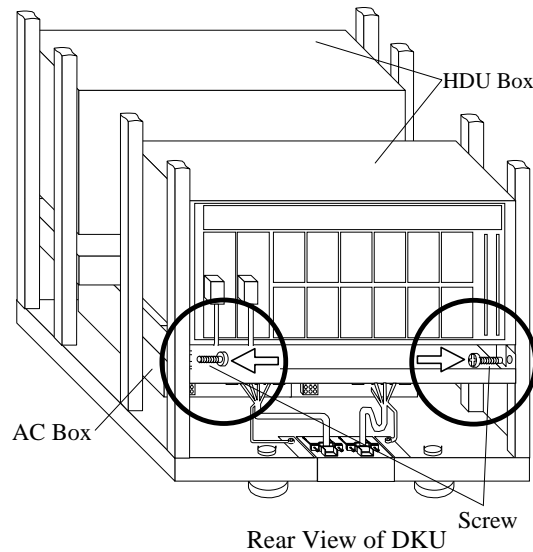


Fig. T22-10 Attachment the Plate

6. Power On the Replacement Component

- Turn on the circuit breakers on the power distribution panel that are connected to the replacement AC BOX.
- Turn on all the circuit breakers (CB101, CB102 and CB103) on the replacement AC BOX.

7. Go to SVP post-procedure t4 [\[REP04-610\]](#).

[POST-PROCEDURE a]

— OUTLINE —

- ① Execute CUDG on P-DEV.
- ② Specify recovery.
- ③ Copy back
- ④ SIM Complete

Before starting the <Check the beginning of recovery> operation in POST-PROCEDURES a, b, c and d, be sure to insert a floppy disk for dump, collect failure information, and return the floppy disk with the failed HDD.

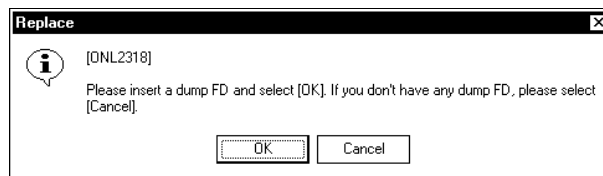
A dump floppy disk is attached with a Spare HDD.

1. <Check the beginning of recovery>

Please insert floppy disk and select (CL)

[OK].

Failure information of the physical device is written to the floppy disk.



[After the complete of writting failure information:]

"Please remove the FD." is displayed.

Please remove the floppy disk and select (CL) [OK].



2. <Spin up the Physical Drive>

"Spinning up..." is displayed.

3. <DKU INLINE>

"DKU INLINE is now running..." is displayed.

4. <Replacement of the DKU micro-program>

When the revision of the DKU micro-program in the SVP hard disk is newer than that in the PDEV, the following message appears on the screen.

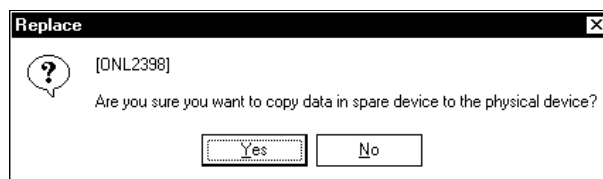
The message “Exchanging DKU micro-program...” appears.

5. <Restore Physical Drive>

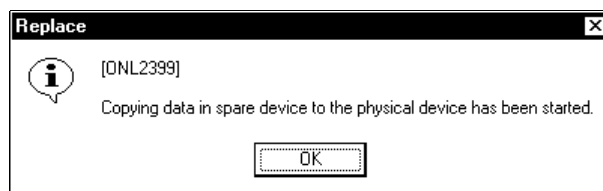
“Restoring...” is displayed.

6. <Checking the Physical Drive>
 “Checking...” is displayed.

7. <Check beginning of copyback>
 Select (CL) [Yes] in response to “Are you sure you want to copy data in spare device to the physical device?”.



8. <Check starting of copyback>
 “Copying...” is displayed.
 Select (CL) [OK] in response to “Copying data in spare device to the physical device has been started.”.



9. <SIM Complete>
 Refer to [SVP02-510](#).

[POST-PROCEDURE b]

— OUTLINE —

- ① Execute CUDG on P-DEV.
- ② Specify recovery.
- ③ Correction copy
- ④ Reset ORM Error Count on the P-DEV.
- ⑤ Reset Threshole Counter
- ⑥ SIM Complete

Before starting the <Check the beginning of recovery> operation in POST-PROCEDURES a, b, c and d, be sure to insert a floppy disk for dump, collect failure information, and return the floppy disk with the failed HDD.

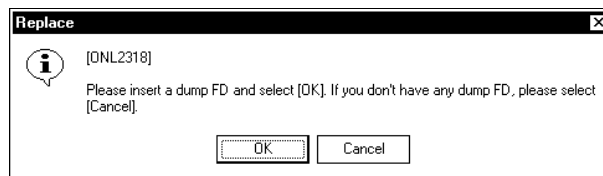
A dump floppy disk is attached with a Spare HDD.

1. <Check the beginning of recovery>

Please insert floppy disk and select (CL)

[OK].

Failure information of the physical device is written to the floppy disk.



[After the complete of writting failure information:]

"Please remove the FD." is displayed.

Please remove the floppy disk and select (CL) [OK].



2. <Spin up the Physical Drive>

"Spinning up..." is displayed.

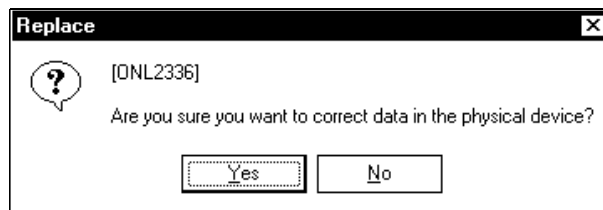
3. <DKU INLINE>

"DKU INLINE is now running..." is displayed.

-
4. <Restore Physical Drive>
“Restoring...” is displayed.

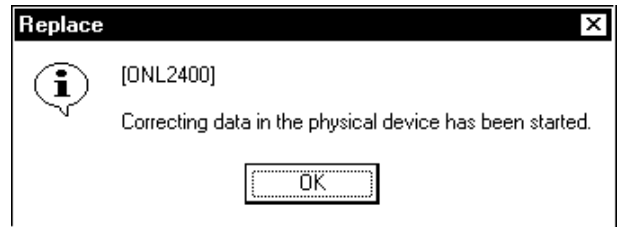
-
5. <Checking the Drive Status>
“Checking...” is displayed.
Device is still blocked.

-
6. <Check beginning of correction copy>
Select (CL) [Yes] in response to “Are you sure you want to correct data in the physical device?”.



-
7. <Correcting data>
“Correcting...” is displayed.

8. <Check the starting of Correction copy>
Select (CL) [OK] in response to “Correcting data in the physical device has been started.”.



9. <Check the end of P-DEV recovery>
Select (CL) [OK] in response to “Replace finished.”.



10. <SIM Complete>
Refer to [SVP02-510](#).

[POST-PROCEDURE c]

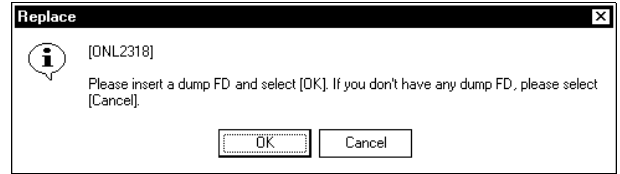
— OUTLINE —

- ① Perform L-DEV formatting on P-DEV.
- ② Reset ORM Error Count on P-DEVs.
- ③ Recover with backup data.
- ④ Reset Threshold Counter
- ⑤ SIM Complete

Before starting the <Check the beginning of recovery> operation in POST-PROCEDURES a, b, c and d, be sure to insert a floppy disk for dump, collect failure information, and return the floppy disk with the failed HDD.

A dump floppy disk is attached with a Spare HDD.

1. <Check the beginning of recovery>
Please insert floppy disk and select (CL)
[OK].
Failure information of the physical device is
written to the floppy disk.



[After the complete of writting failure information:]
"Please remove the FD." is displayed.
Please remove the floppy disk and select (CL) [OK].



2. <Spin up the Physical Drive>
"Spinning up..." is displayed.

3. <DKU INLINE>
"DKU INLINE is now running..." is displayed.

4. <Replacement of the DKU micro-program>

When the revision of the DKU micro-program in the SVP hard disk is newer than that in the PDEV, the following message appears on the screen.

The message "Exchanging DKU micro-program..." appears.

5. <Restore Physical Drive>

"Restoring..." is displayed.

6. <Checking the Drive Status>

"Checking..." is displayed.

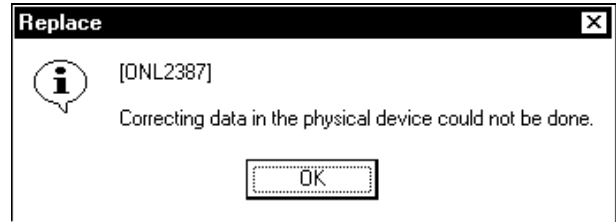
7. <Correction Copy disable message>

Select (CL) [OK] in response to “Correcting data in the physical device could not be done.”.

NOTICE

If a blocked HDD exists in the same parity group, replace the HDD.

After confirming that "NORMAL" is indicated for all the HDDs in the same parity group, execute an L-DEV formatting following the procedure below.



8. <Select [Logical Device]>

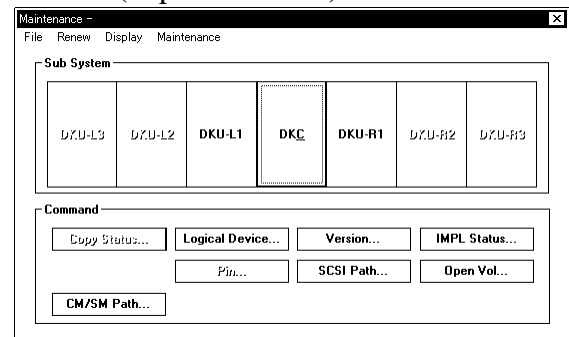
Select (CL) [Logical Device] from [Maintenance].

NOTICE

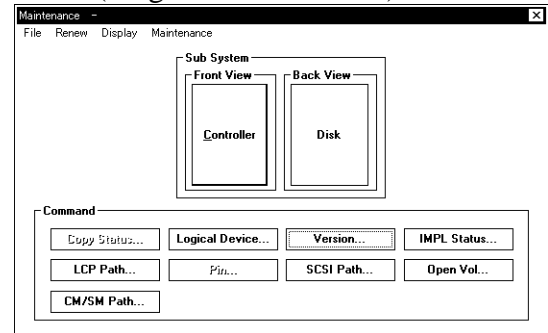
Before you perform following steps, be sure to call T.S.C.

Data housed in Logical Device will be lost due to formatting Logical Device.

(Separate Model)

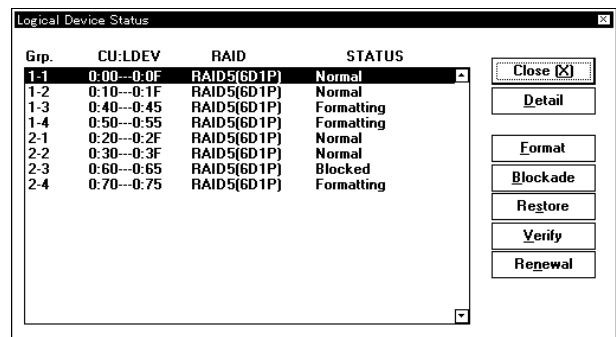


(Single Cabinet Model)



9. <Logical Device Status>

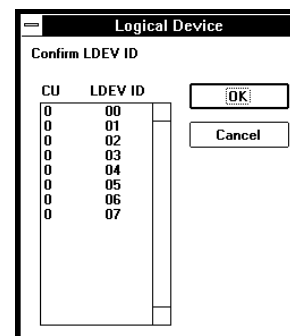
Select (CL) [Format...].



10. <Format Logical Device>

Select (CL) corresponding LDEV from the LDEV ID list in the 'Logical Device' dialog box and select (CL) [OK].

If target LDEV was not blocked, return to 'Logical Device Status' dialog box.



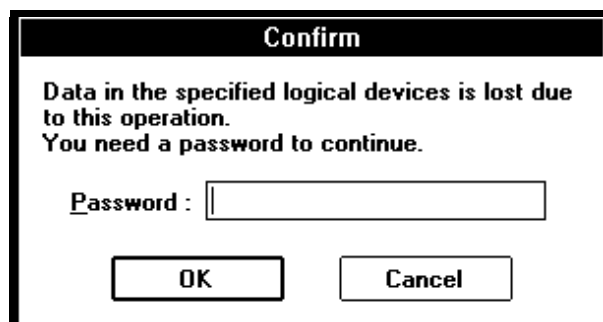
11. <Caution message for DATA lost>

"Data in the specified logical devices is lost due to this operation. You need a password to continue." is displayed.

Enter the password and select (CL) [OK].

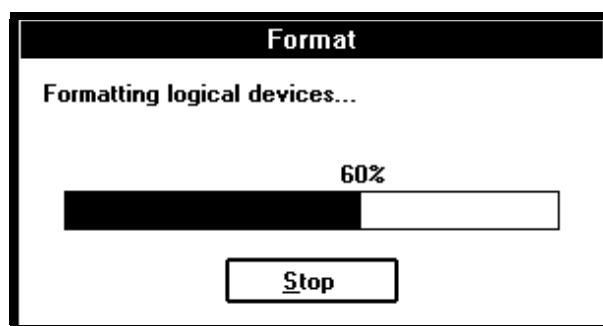
NOTICE

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.



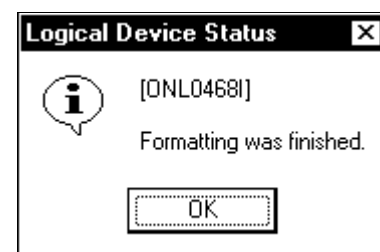
12. <Check Formatting the logical Device>

"Formatting the logical device..." is displayed.



13. <Check the end of Format Logical Device>

Select (CL) [OK] in response to "Formatting was finished."



-
14. <SIM Complete>
Refer to [SVP02-510](#).

-
15. <Recover data>
Ask the customer for recovering data with backup data.

[POST-PROCEDURE d]

— OUTLINE —

- ① Execute CUDG on P-DEV.
- ② Specify recovery.
- ③ Reset ORM Error Count on the P-DEV.
- ④ Reset Threshold Counter
- ⑤ SIM Complete

Before starting the <Check the beginning of recovery> operation in POST-PROCEDURES a, b, c and d, be sure to insert a floppy disk for dump, collect failure information, and return the floppy disk with the failed HDD.

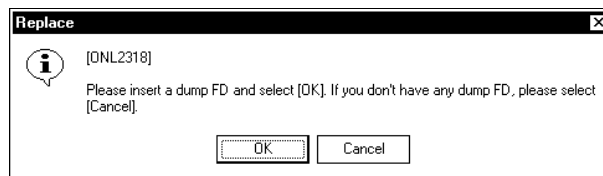
A dump floppy disk is attached with a Spare HDD.

1. <Check the beginning of recovery>

Please insert floppy disk and select (CL)

[OK].

Failure information of the physical device is written to the floppy disk.



[After the complete of writting failure information:]

"Please remove the FD." is displayed.

Please remove the floppy disk and select (CL) [OK].



2. <Check the spin up process>

"Spinning up..." is displayed.

3. <Check the INLINE process>

"DKU INLINE is now running..." is displayed.

4. <Replacement of the DKU micro-program>

When the revision of the DKU micro-program in the SVP hard disk is newer than that in the PDEV, the following message appears on the screen.

The message “Exchanging DKU micro-program...” appears.

5. <Restore Physical Drive>

“Restoring...” is displayed.

6. <Check the end of P-DEV recovery>

Select (CL) [OK] in response to “Replace finished.”.



7. <SIM Complete>

Refer to [SVP02-510](#).

[POST-PROCEDURE e]

— OUTLINE —

- ① Execute CUDG on cache.
- ② Specify recovery.
- ③ SIM Complete

1. <Check the execution of INLINE CUDG>

When you selected [Replace (INLINE)]:

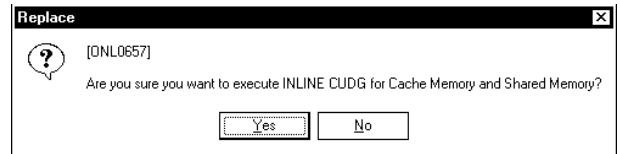
Select (CL) [No] in response to:

* For CACHE (with SM)

“Are you sure you want to execute INLINE CUDG for Cache Memory and Shared Memory?”

* For CACHE

“Are you sure you want to execute INLINE CUDG for Cache Memory?”



When you selected [Replace]:

Go to 2.

2. <INLINE CUDG>

“INLINE CUDG is now running...” is displayed.

3. <Check the beginning of cache/SM recovery>

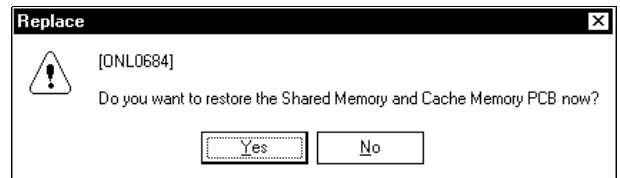
Select (CL) [Yes] in response to:

* For CACHE (with SM)

“Do you want to restore the Shared Memory and Cache Memory PCB now?”

* For CACHE ----- [Go to step 5]

“Do you want to restore the Cache Memory PCB now?”



NOTICE

Selecting "No" stops the recovery and places the cache in the status being blocked for maintenance.

4. <Restoring the Shared Memory>

“Restoring the Shared Memory PCB...” is displayed.

5. <Restoring the Cache Memory>
“Restoring the Cache Memory PCB...” is displayed.

6. <Check the end of Cache/Shared Memory recovery>
Select (CL) [OK] in response to “Replace finished.”.



7. <SIM Complete>
Refer to [SVP02-510](#).

8.
Close 'cache-xx' window.
Close 'cluster-n' window.
Close 'DKC' window.

[POST-PROCEDURE f]

— OUTLINE —

- ① Specify recovery for CHA/DKA.
- ② Path online (for CHA)
- ③ SIM Complete

1.
“DKU PATH INLINE is now running...” is displayed.
(for DKA)

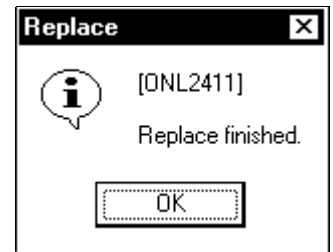
-
2. <Check the recovery processing>
The following message is displayed:

* For DKA
“Restoring the DKA...”

3. <Check the end of CHA/DKA recovery>
Select (CL) [OK] in response to "Replace finished."

NOTICE

Confirm the version of the exchanged CHA/DKA microprogram on the "STATUS" screen.



4. <Path on-line when CHA is replaced>
Whenever a CHA is replaced, set the path (from the host) on the replaced CHA to ONLINE by your customer.

5. <SIM Complete>
Refer to [SVP02-510](#).

6.
Close 'CHA-xx' window.
Close 'cluster-n' window.
Close 'DKC' window.

[POST-PROCEDURE i]

— OUTLINE —

- ① Specify recovery for DKA.
- ② SIM Complete

NOTICE

This processing is a special procedure for detecting a cause of a path error.
Contact the technical support center before performing this processing.

NOTICE

This processing is a special procedure for detecting a cause of a path error.
Contact the technical support center before performing this processing.

1. <Check the execution of PATH INLINE>

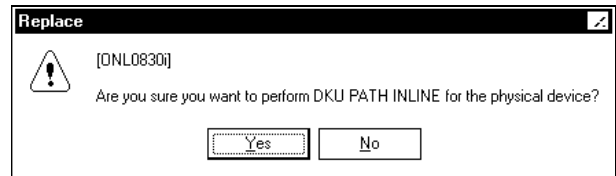
Select (CL) [Yes] in response to:

“Are you sure you want to perform DKU
PATH INLINE for the physical device?”

Go to step 2.

Select (CL) [No] in response to:

Go to step 3.



2.

“DKU PATH INLINE is now running...” is displayed.

3. <Check the DKA recovery processing>

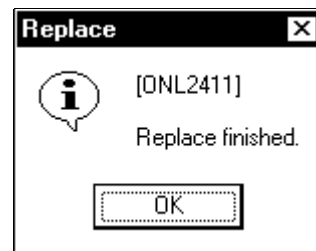
The following message is displayed:

“Restoring the DKA...”

NOTICE

This processing is a special procedure for detecting a cause of a path error.
Contact the technical support center before performing this processing.

4. <Check the end of DKA recovery>
Select (CL) [OK] in response to “Replace finished.”.



-
5. <SIM Complete>
Refer to [SVP02-510](#).

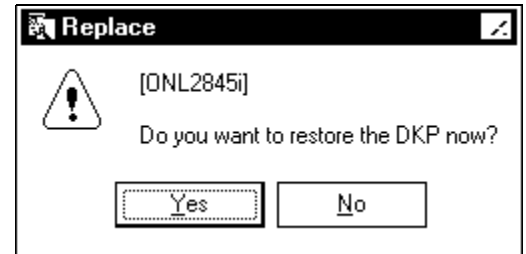
-
6.
Close 'DKA-xx' window.
Close 'cluster-n' window.
Close 'DKC' window.

[POST-PROCEDURE j]

— OUTLINE —

- ① Specify recovery of DKP was connected FSW.
- ② SIM Complete

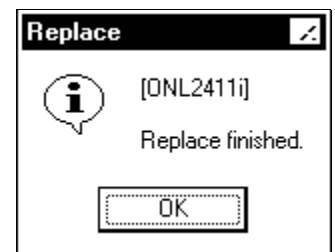
1. <Check the beginning of DKP recovery>
Select (CL) [Yes] in response to “Do you want to restore the DKP now?”.



2. <DKU PATH INLINE>
“DKU PATH INLINE is now running...” is displayed.

3. <Check DKP recovery processing>
“Restoring the DKP...” is displayed.

4. <Check the end of FSW replace>
Select (CL) [OK] in response to “Replace finished.”.



-
5. <SIM Complete>
Refer to [SVP02-510](#).

-
6.
Close 'HDU-xxx' window.
Close 'DKU-xx' window.

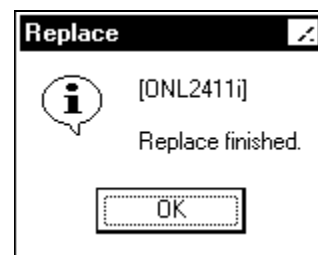
[POST-PROCEDURE k]

— OUTLINE —

- ① Specify recovery of CSW.
- ② SIM Complete

1. <Check the CSW recovery procedure>
“Restoring the CSW...” is displayed.

2. <Check the CSW replace finished>
Select (CL) [OK] in response to “Replace finished.”.



3. <SIM Complete>
Refer to [SVP02-510](#).

[POST-PROCEDURE t1]

— OUTLINE —

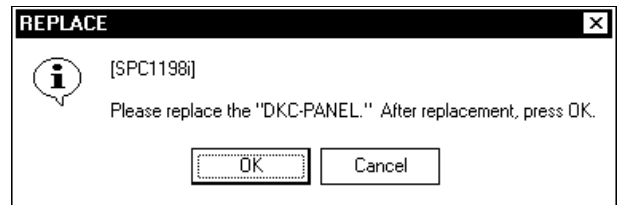
- ① Specify end of special part replacement.
- ② Reinstall related parts.
- ③ Start environment monitor.
- ④ SIM Complete

[1] Start of POST-PROCEDURE

1. <Check replacement of special part>

Select (CL) [OK] in response to "Please replace the "XXXXX." After replacement, press OK.". Valid "XXXXX" values are listed below.

- DKC-PANEL ---Go to [2] ([REP04-340](#))
- PCI CON-----Go to [3] ([REP04-360](#))
- EPO SW -----Go to [7] ([REP04-390](#))
- RS CON-----Go to [10] ([REP04-480-05](#))
- DKCMN 1/2-----Go to [4] ([REP04-370](#))
- SSVP/HUB-----Go to [8] ([REP04-400](#))



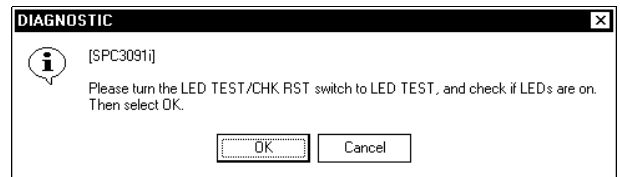
(ex. DKC-PANEL)

- SVP-----Go to [9] ([REP04-410-01](#))
- SVP&FLASH ---Go to [9] ([REP04-410-01](#))
- FLASH CARD--Go to [10]-2 ([REP04-480-06](#))

[2] DKC-PANEL

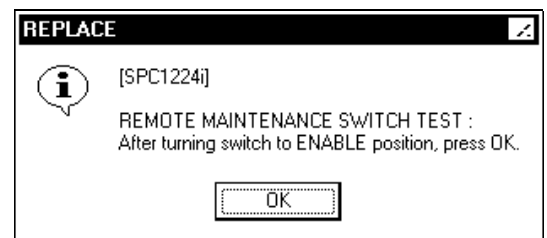
1. <LED TEST>

Select (CL) [OK] in response to “Please turn the LED TEST/CHK RST switch to LED TEST, and check if LEDs are on. Then select OK.”.



2.

Select (CL) [OK] in response to “REMOTE MAINTENANCE SWITCH TEST: After turning switch to ENABLE position, press OK.”.

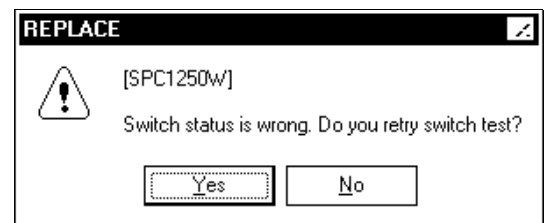


3.

If an error has occurred in the switch test, an error message is displayed.

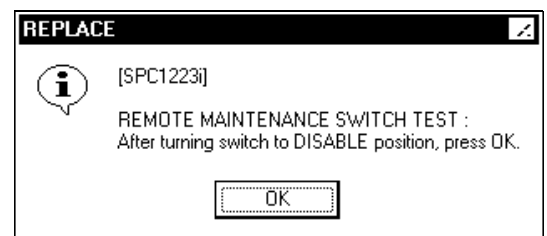
If you select (CL) [Yes], go back to step 2.

If you select (CL) [No], go to step 8.



4.

Select (CL) [OK] in response to “REMOTE MAINTENANCE SWITCH TEST: After turning switch to DISABLE position, Press OK.”.

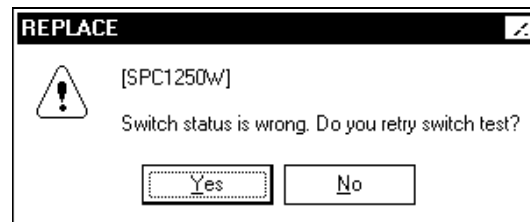


5.

If an error has occurred in the switch test, an error message is displayed.

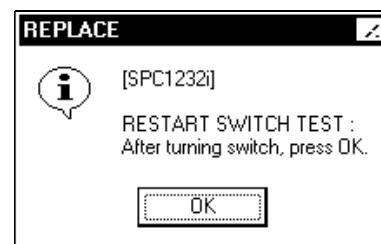
If you select (CL) [Yes], go back to step 4.

If you select (CL) [No], go to step 8.



6.

Select (CL) [OK] in response to “RESTART SWITCH TEST: After turning switch, press OK.”.

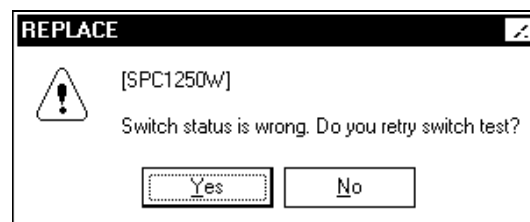


7.

If an error has occurred in the switch test, an error message is displayed.

If you select (CL) [Yes], go back step 6.

If you select (CL) [No], go to step 8.



8. <Set REMOTE/LOCAL>

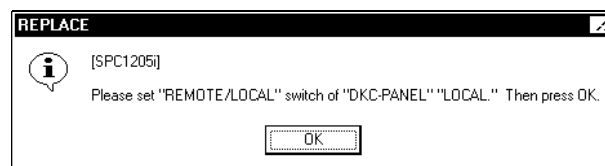
Set REMOTE/LOCAL switch, in response to the message “Please set “REMOTE/LOCAL” switch of “DKC-PANEL” “XXXXX”. Then press OK.”.

“XXXXX” represents “REMOTE” or “LOCAL”.

After confirming that switch set, select (CL) [OK].

The SVP automatically checks the REMOTE/LOCAL switch status.

Go to [3] ([REP04-360](#)).



(ex. the switch was LOCAL before replacement)

[3] DETACH JUMPER

1. <Detach jumper>

Detach jumper from DKCMN in response to
“Please detach DKC Panel INH jumper plug.
Then press OK.”.

After confirming that jumper is detached,
select (CL) [OK].

The SVP automatically checks that jumper
plug is detached.

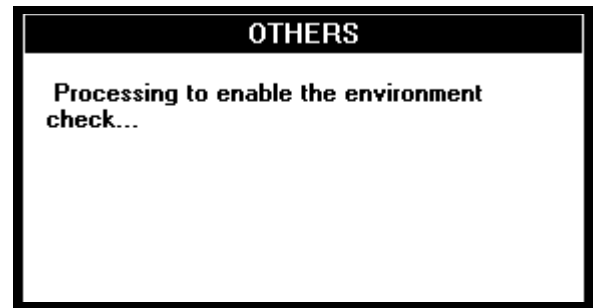
- PCI CON----- Go to [5] ([REP04-380](#))
- Other PCB ----- Go to [10] ([REP04-480-07](#))(If some error has occurred in Post Procedure,
Go to [11] ([REP04-530](#)).)



[4] DKCMN 1/2

1. <Check environment monitor start processing>
“Processing to enable the environment check...”
is displayed.

Go to [10] ([REP04-480-05](#)).



[5] PCI CON

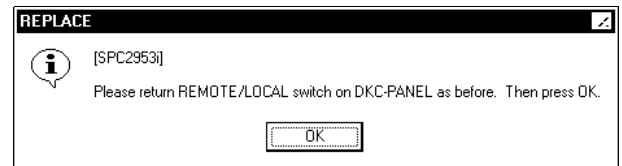
1. <Reset DKC-PANEL switch>

Reset REMOTE/LOCAL switch to original value in response to “Please return REMOTE/LOCAL switch, on DKC-PANEL as before. Then press OK.” (see HARDWARE T4) ([REP03-330 step 1](#)).

After checking SW setting, select (CL) [OK].

Go to [10] ([REP04-480-05](#)).

(If some error has occurred in Post Procedure, Go to [11] ([REP04-530](#)).)



[7] EPO SW

1.

The SVP automatically checks the EPO SW status.

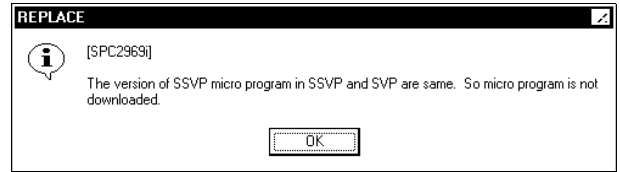
Go to [3] ([REP04-360](#)).

[8] SSVP/HUB

1. <Warning message>

When versions of the microprogram to be downloaded to the SSVP and that stored in an ROM in the SSVP are the same, a message, “The version of SSVP micro program in SSVP and SVP are same. So micro program is not downloaded.” is displayed.

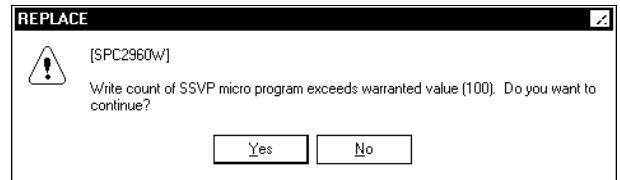
Select (CL) [OK] and go to Item [10] on page [REP04-480-05](#).



When a number of the SSVP microprogram down-loads exceeds 100, a message, “Write count of SSVP micro program exceeds warranted value (100). Do you want to continue?” is displayed.

When you want to download, select (CL) [Yes] and go to the next step.

When you do not want to download, select (CL) [No] and go to Item [10] on page [REP04-480-05](#).

**NOTICE**

When performing a down-load, a request for an entry of a password is displayed. Contact the Technical Support Center to ask for an instruction.

2.

The message “SSVP microprogram download.” is displayed.

Go to [10] ([REP04-480-05](#)).

SSVP microprogram download.[07/16]

Blank Sheet

REV.3	Jan.2000	Apr.2000	May.2000	Nov.2000		
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[9] SVP, SVP&FLASH CARD

1. Powering up the SVP

**Caution**

If the MESSAGE LED on DKC-PANEL has lit on when power on SVP, please complete SIM before operation.

(It is no problem, because pending SIM has already existed in new SVP.)

1-1. USB-LAN Driver install

- In the case that SNMP is installed

Please ask it of the network manager of client ,in the case that item of work sheet of [REP02-477](#) is unentry.

Note: Default settings , when the function of SNMP Option is not used. [Refer to (32)-(38)]

[Windows95] ----- Go to 1-2

[Windows98] ----- Go to 1-3 [[REP04-410-20](#)]

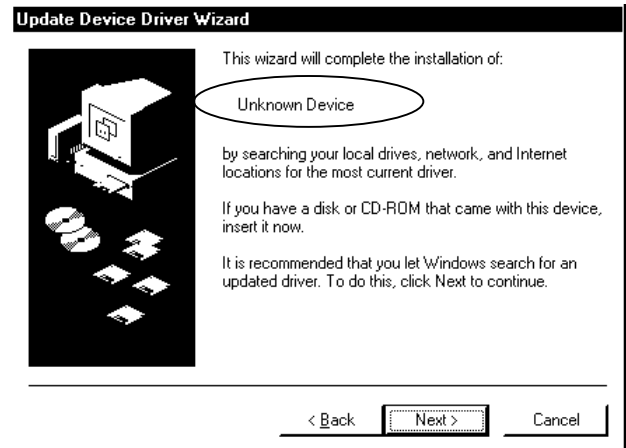
- In the case that SNMP is not installed

Go to 1-4 [[REP04-410-30](#)]

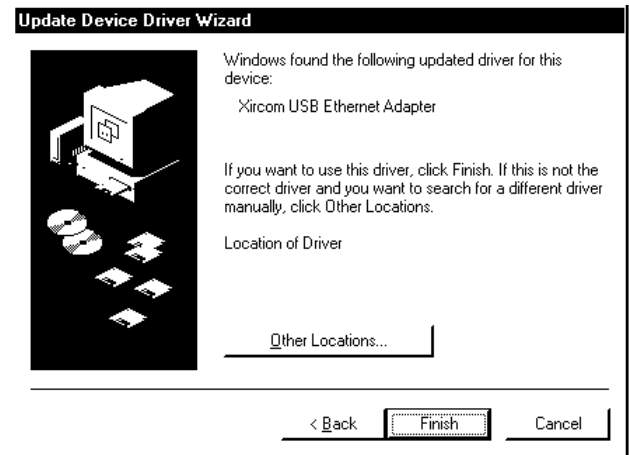
1-2. USB-LAN Driver install for Windows95

(1) If SVP displays a message, “Unknown Device” from “Update Device Driver Wizard”.

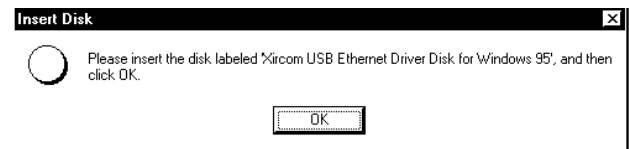
- a) Insert the USB-LAN Driver FD into the FD Drive.
Select (CL) [Next] from “Update Device Driver Wizard”.



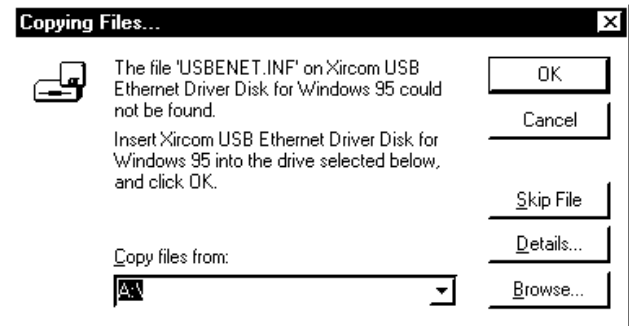
- b) Select (CL) [Finish] from “Update Device Driver Wizard”.



- c) Select (CL) [OK] from “Insert Disk”



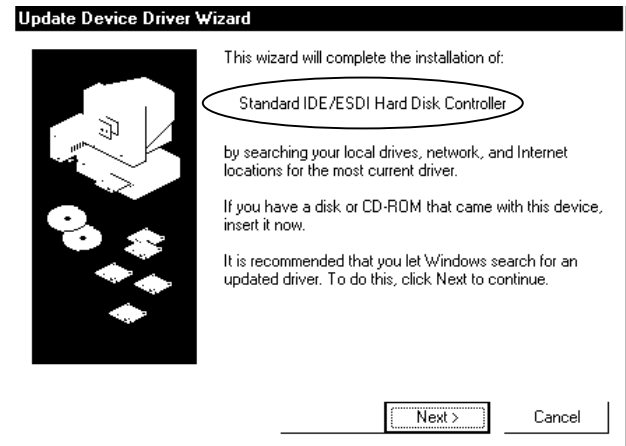
- d) Input “A:\”, and Select(CL) [OK].



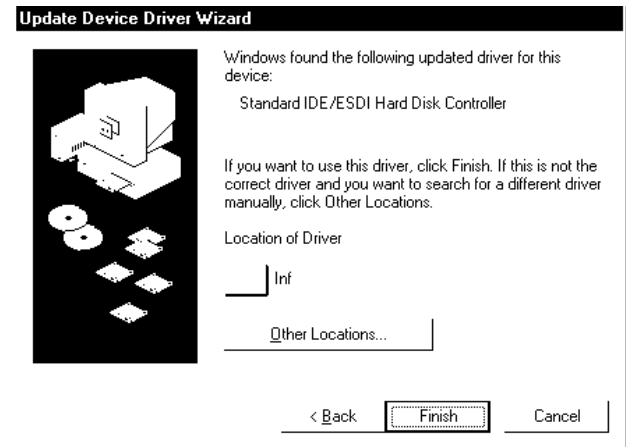
- e) Remove the USB-LAN Driver FD.

- (3) If SVP displays a message, “Standard IDE/ESDI Hard Disk Controller” from “Update Device Driver Wizard”.

a) Select (CL) [Next] from “Update Device Driver Wizard”.

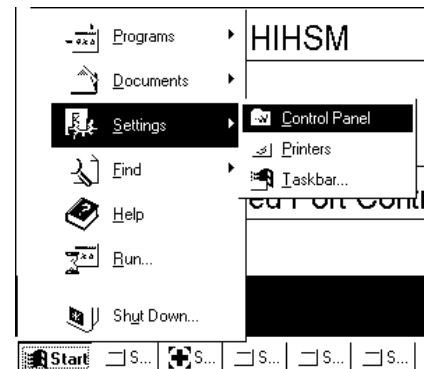


b) Select (CL) [Finish] from “Update Device Driver Wizard”.

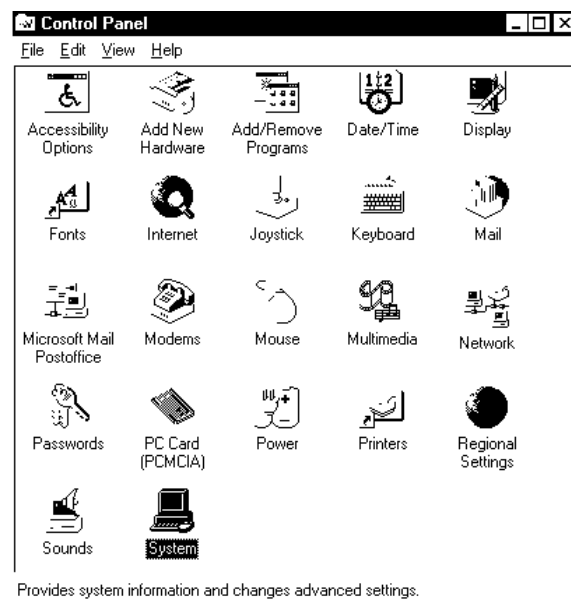


- (4) <Open “Control Panel”>

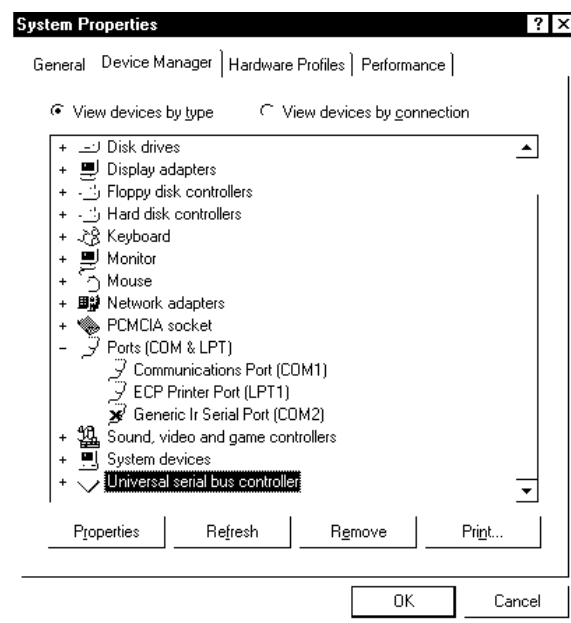
Select (DR) [Settings] and then [Control Panel] from [Start]



- (5) <Open “System”>
Select (DC) “System” from “Control Panel”



- (6) <Open “Universal serial bus controller”>
Select (CL) “Device Manager” from “System Properties”.
Select (DL) “Universal serial bus controller”.



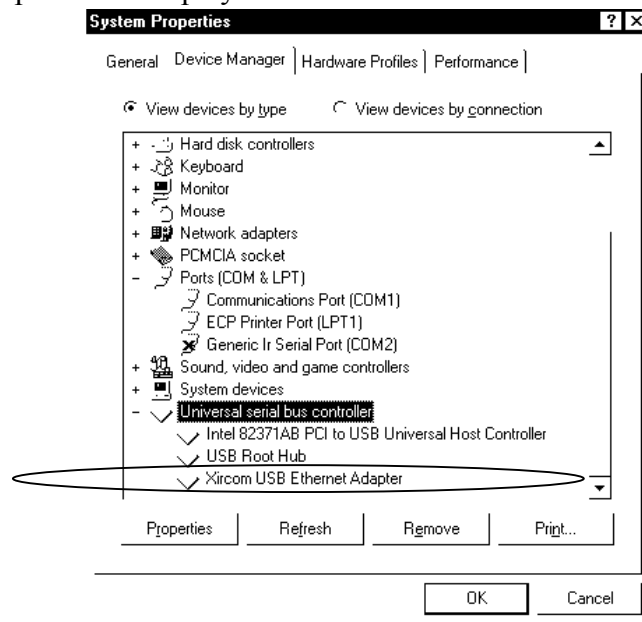
(7) <Check USB LAN Driver>

Check “Universal serial bus controller” from “System Properties”.

- In the case that “Xircom USB Ether Adapter” was displayed.

Select (CL) [Cancel] from “System Properties”.

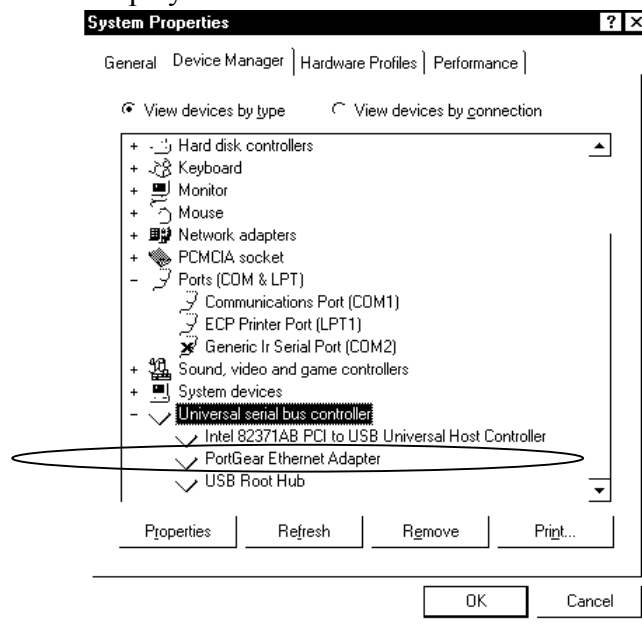
Go to (8).



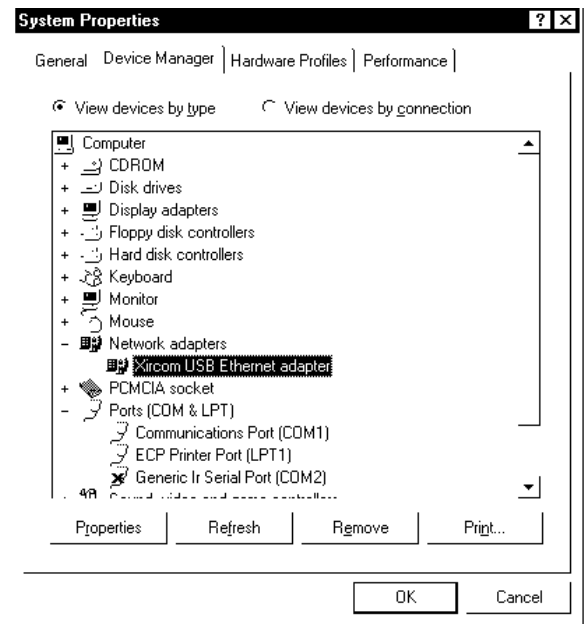
- In the case that “PortGear Ether Adapter” was displayed.

Select (CL) [Cancel] from “System Properties”.

Go to (23).



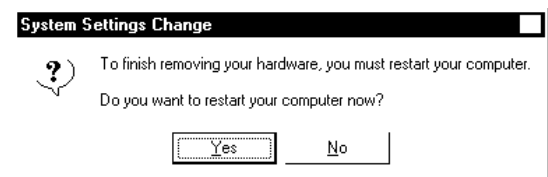
- (8) <Delete “Xircom USB Ethernet adapter”>
 Select (DL) “Network adapters” from “System Properties”..
 Select (CL) “Xircom USB Ethernet adapter”,
 and Select (CL) [Remove].



- (9) <Confirm Device Removal>
 Select (CL) [OK] from “Confirm Device Removal”

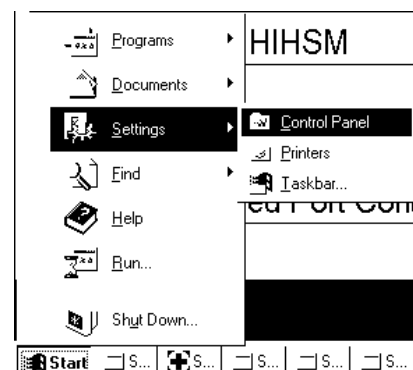


- (10) <Check reboot SVP>
 Select (CL) [Yes] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



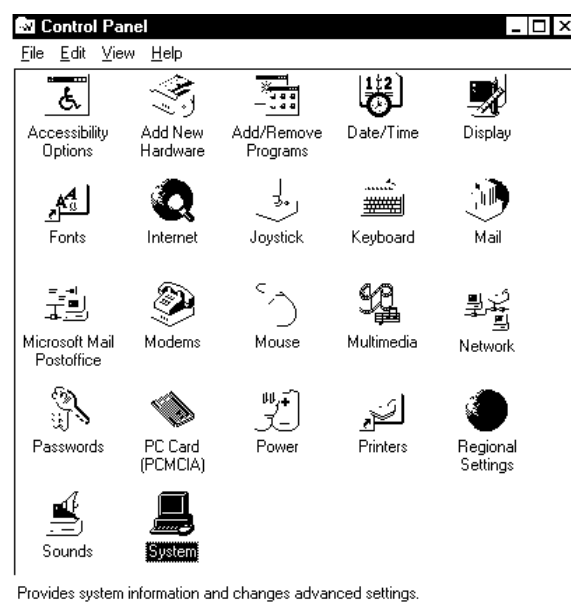
(11) <Open “Control Panel”>

Select (DR) [Settings] and then [Control Panel] from [Start]



(12) <Open “System”>

Select (DC) “System” from “Control Panel”

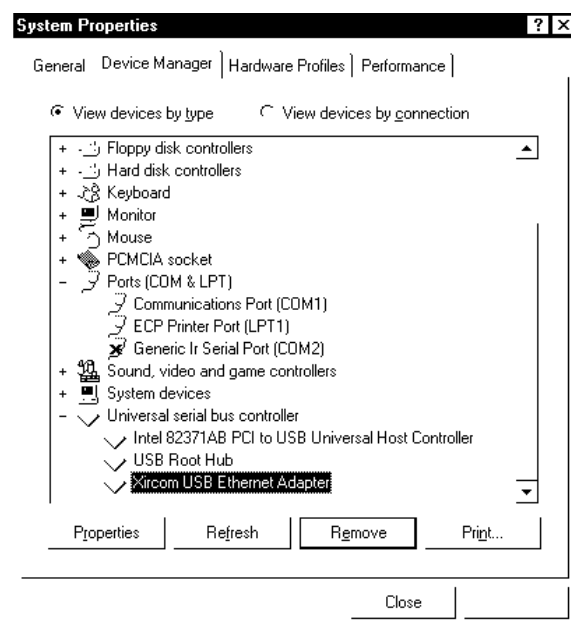


(13) <Open “Xircom USB Ethernet adapter”>

Select (CL) “Device Manager” from “System Properties”.

Select (DL) “Universal serial bus controller”.

Select (CL) “Xircom USB Ethernet adapter”, and Select (CL) [Properties].



(14) <Update Driver>

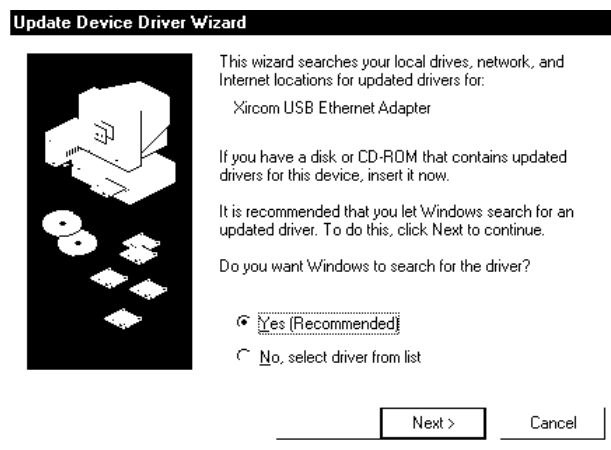
Select “Driver” from “Xircom USB Ethernet Adapter Properties”, and select (CL) [Update Driver].



(15) <Insert Driver FD>

Insert the USB-LAN Driver FD into the FD Drive.

Select (CL) [Next] from “Update Device Driver Wizard”.



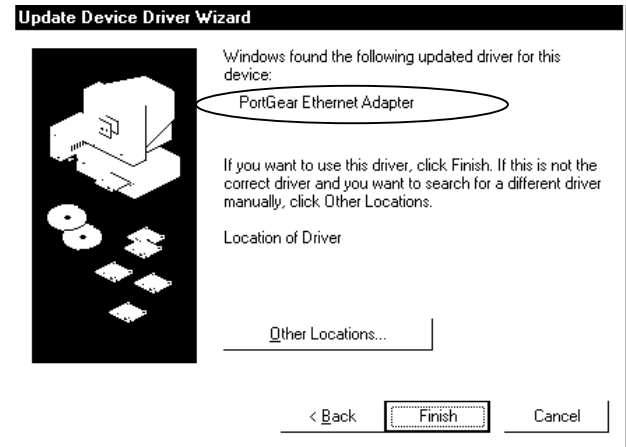
(16) <Check “Update Device Driver Wizard”>

Check “Windows found the following driver for this device:” from “Update Device Driver Wizard”.

- In the case that “PortGear Ether Adapter” was displayed.

Select (CL) [Finish] from “Update Device Driver Wizard”.

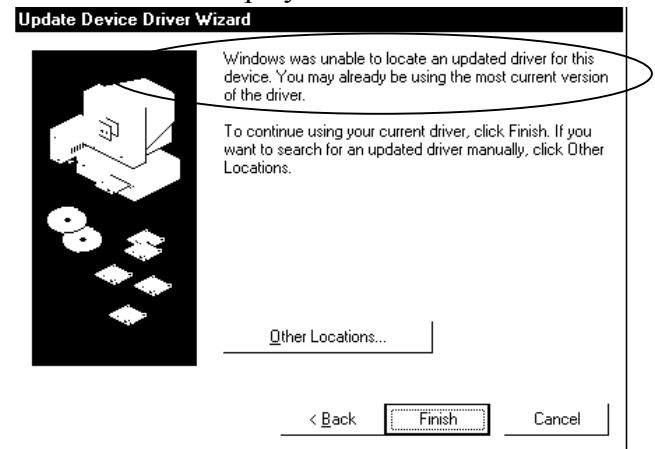
Go to (19).



- In the case that “Windows was unable to locate an update driver for this device. you may already be using the most current version of the driver.” was displayed.

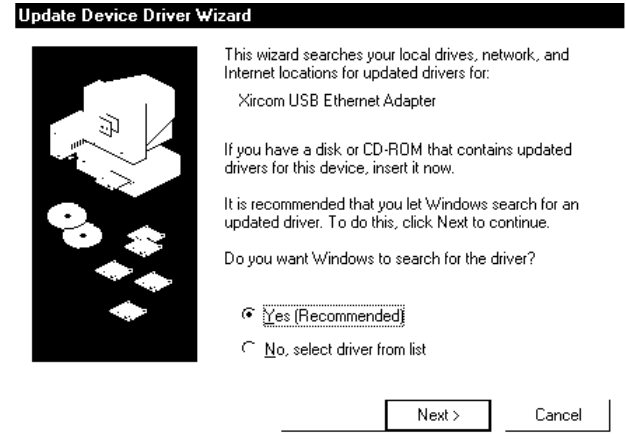
Select (CL) [<Back] from “Update Device Driver Wizard”.

Go to (17).



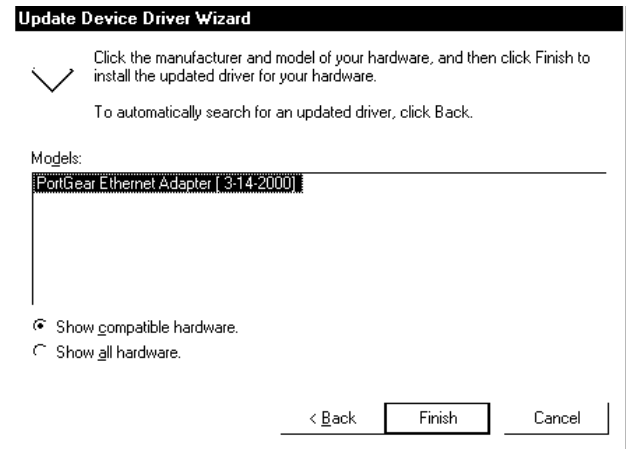
(17) <Select Driver List>

Select (CL) “No , select driver from list”.
 Select (CL) [Next] from “Update Device Driver Wizard”.



(18) <Select Driver>

Select (CL) “PortGear Ethernet Adapter [3-14-2000] from “Update Device Driver Wizard”.
 Select (CL) [Finish] from “Update Device Driver Wizard”.



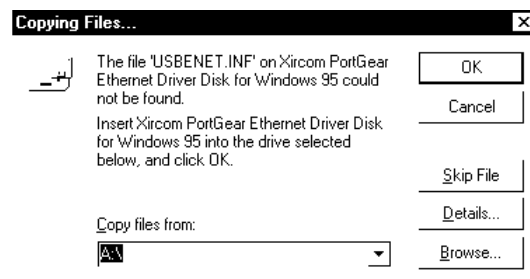
(19) <Close “Insert Disk”>

Select (CL) [OK] “Insert Disk”.



(20) <Copying Files>

Input “A:\”, and Select (CL) [OK] from “Copying Files”.



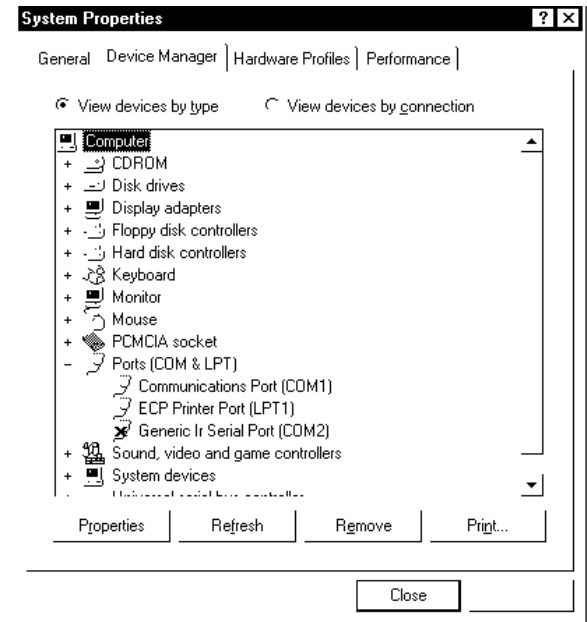
(21) <Close “PortGear Ethernet Adapter Properties”>

Select (CL) [Close] from “PortGear Ethernet Adapter Properties”.



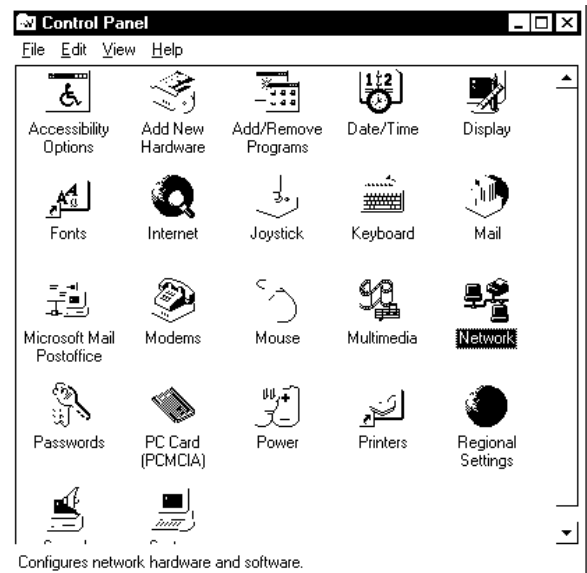
(22) <Close “System Properties”>

Select (CL) [Close] from “System Properties”



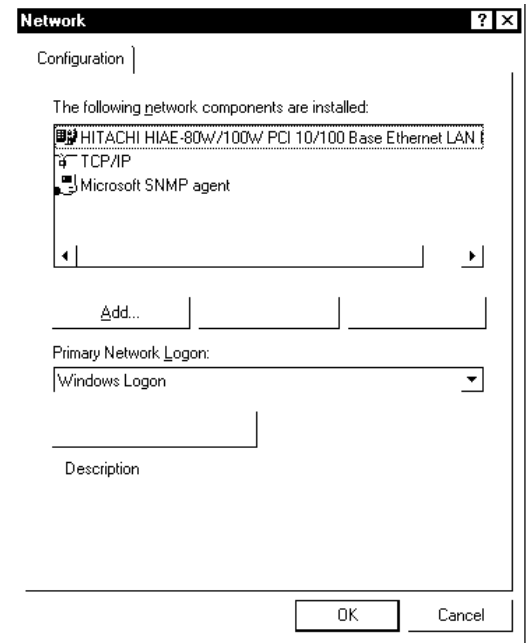
(23) <Open “Network”>

Select (DC) “Network” from “Control Panel”.



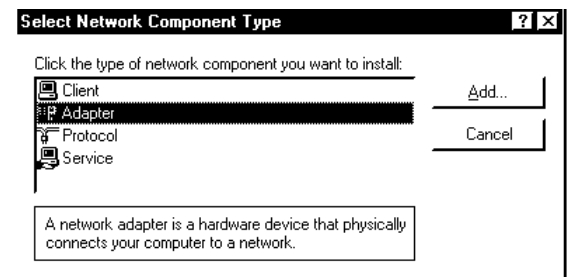
(24) <Add “Network components”>

Select (CL) [Add...] from “Configuration” of “Network”.



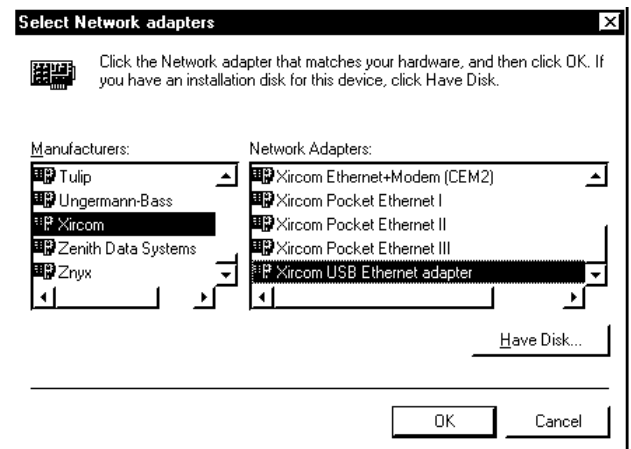
(25) <Add “Adapter”>

Select (CL) “Adapter” from “Select Network Components Type”, and select (CL) [Add...].



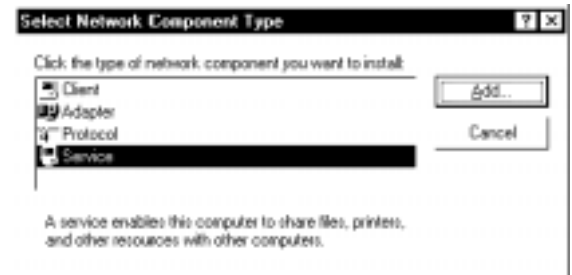
(26) <Select “Adapter”>

Select (CL) “Xircom” from “Manufacturers”, and “Xircom USB Ethernet adapter” from “Network Adapter”, and select (CL) [OK].



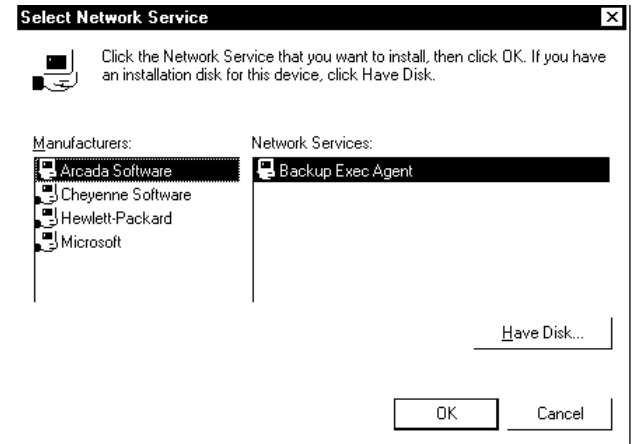
(27) <Add “Service”>

Select (CL) “Service” from “Select Network Components Type”, and select (CL) [Add...].



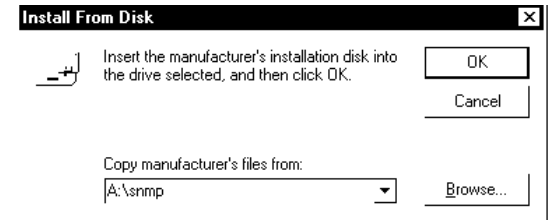
(28) <Select “Network Service”>

Select (CL) [Have Disk].



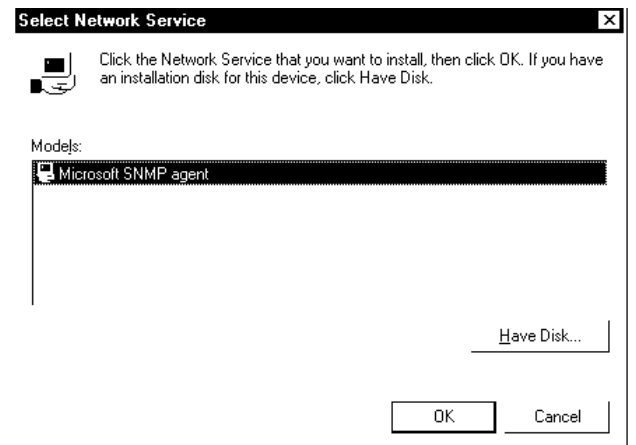
(29) <Install from Disk>

Input “A:\snmp”, and Select (CL) [OK].

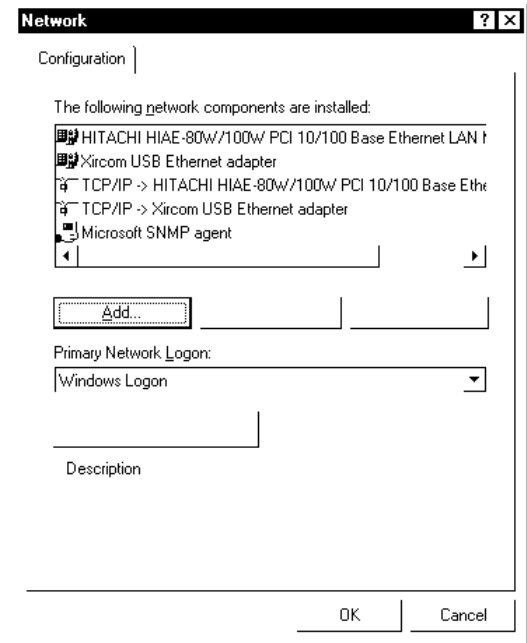


(30) <Select Network Service>

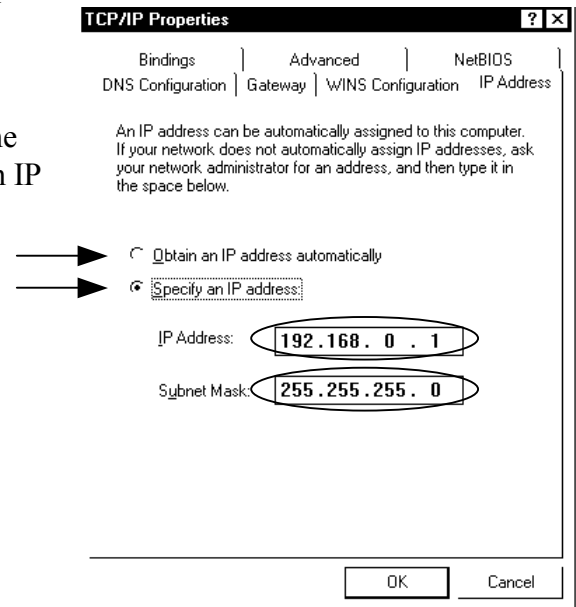
Select (CL) [OK].



- (31) <Open “TCP/IP” for “Xircom USB Ethernet adapter”>
 Select (CL) “TCP/IP -> Xircom USB Ethernet adapter” from “Configuration”, and select (CL) [Properties].



- (32) <Set “IP Address” for “Xircom USB Ethernet adapter”>
 a) Put a check mark to any of “Obtain an IP Address Automatically”, “Specify an IP Address”, in reference to the work sheet. Input “IP Address” and “Subnet Mask”, in the case that it did the check mark to “Specify an IP Address”.

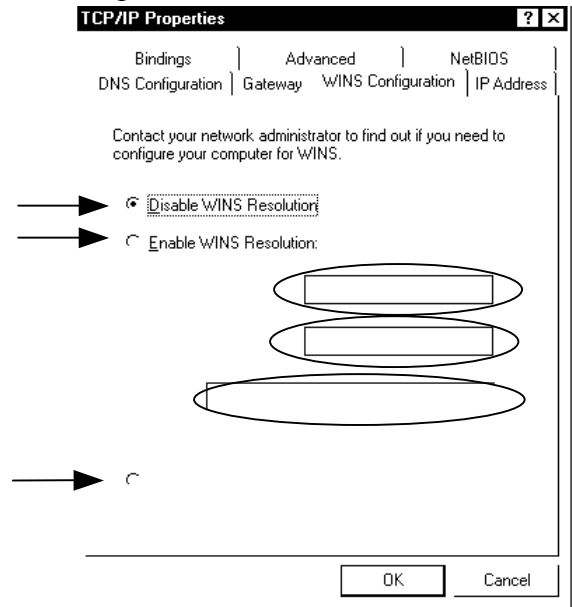


(ex. Default)

- b) Select (CL) “WINS Configuration” from “TCP/IP Properties”.

(33) <Set “WINS Configuration” for “Xircom USB Ethernet adapter”>

- a) Put a check mark to any of “Obtain an IP Address Automatically”, “Specify an IP Address”, in reference to the work sheet. Setting the check mark of “Use DHCP for WINS Resolution”.
- Input “Primary WINS Server”, “Secondary WINS Server” and “Scope ID”, in the case that it did the check mark to “Enable WINS Resolution”.

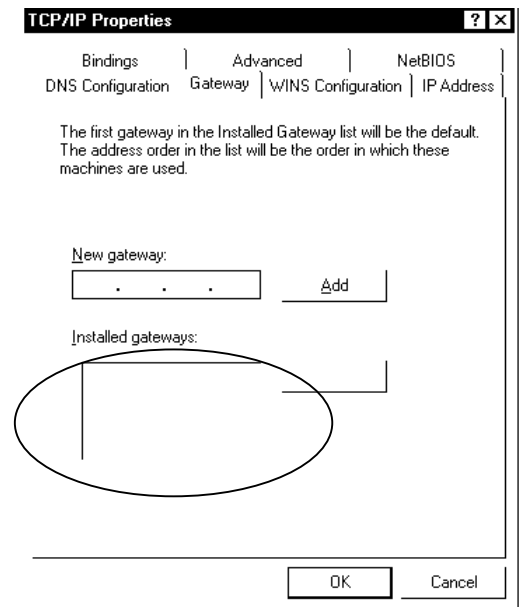


(ex. Default)

- b) Select (CL) “Gateway” from “TCP/IP Properties”.

(34) <Set “Gateway” for “Xircom USB Ethernet adapter”>

- a) Do the following operation, in reference to the work sheet.
- Input “Installed gateways” in “New gateway” , and select (CL) “Add...”.
- Addition other all “Installed gateways” for this operation.



(ex. Default)

- b) Select (CL) “DNS Configuration” from “TCP/IP Properties”.

(35) <Set “DNS Configuration” for “Xircom USB Ethernet adapter”>

a) Do the following operation, in reference to the work sheet.

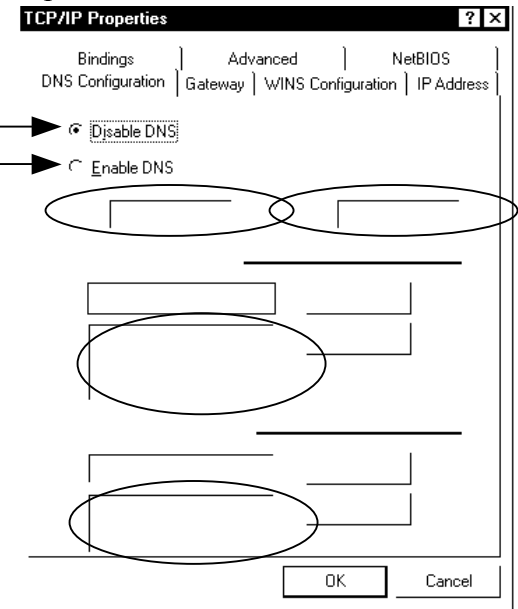
i) Put a check mark to any of “Disable DNS”, “Enable DNS”.

ii) Input “Host” and “Domain”, in the case that it did the check mark to “Enable DNS”. Input “DNS Server Search Order”, and select (CL) “Add...”.

Addition other all “DNS Server Search Order” for this operation.

Input “Domain Suffix Search Order”, and select (CL) “Add...”.

Addition other all “Domain Suffix Search Order” for this operation.

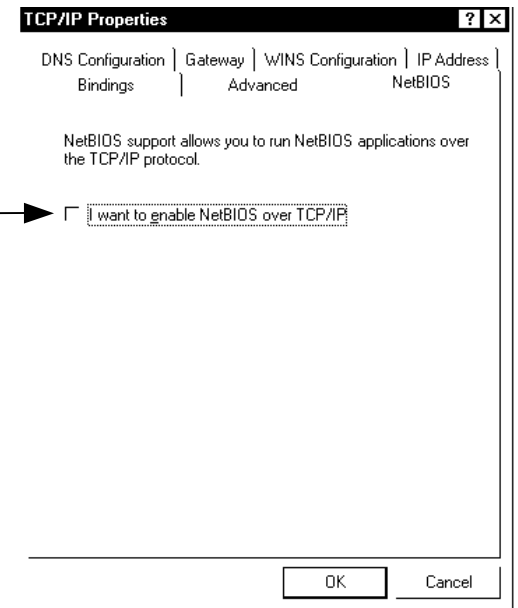


(ex. Default)

b) Select (CL) “NetBIOS” from “TCP/IP Properties”.

(36) <Check “NetBIOS” for “Xircom USB Ethernet adapter”>

a) Setting the check mark of “I want to enable NetBIOS over TCP/IP”, in reference to the work sheet.

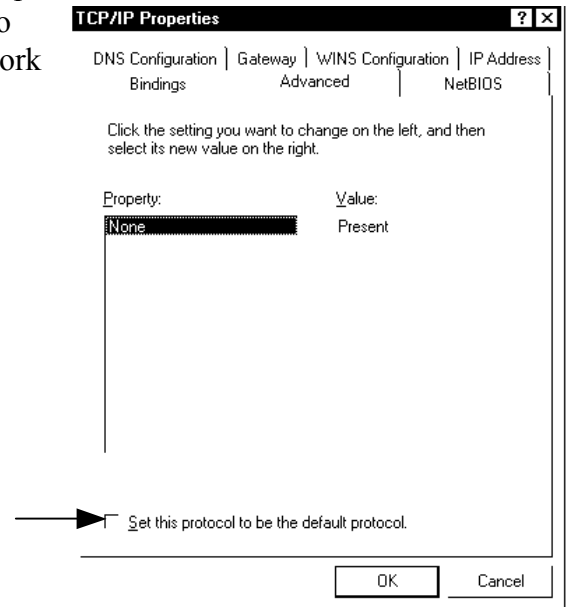


(ex. Default)

b) Select (CL) “Advanced” from “TCP/IP Properties”.

(37) <Check “Advanced” for “Xircom USB Ethernet adapter”>

- a) Setting the check mark of “Set this protocol to be the default protocol”, in reference to the work sheet.

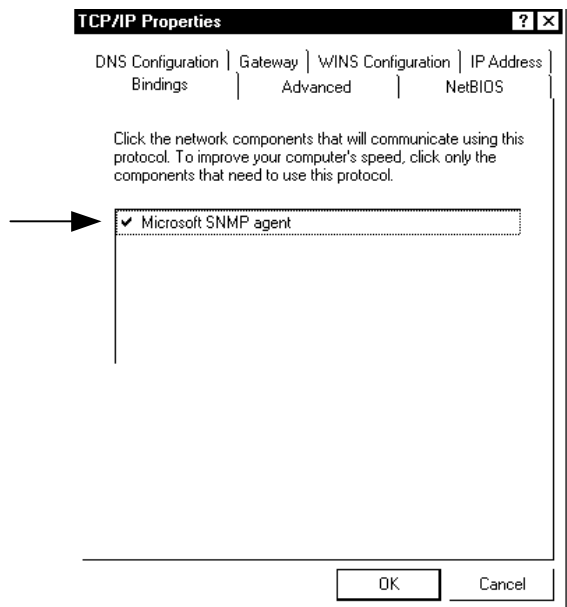


(ex. Default)

- b) Select (CL)“Binding” from “TCP/IP Properties”.

(38) <Check “Binding” for “Xircom USB Ethernet adapter”>

- a) Setting the check mark of “Microsoft SNMP agent”, in reference to the work sheet.

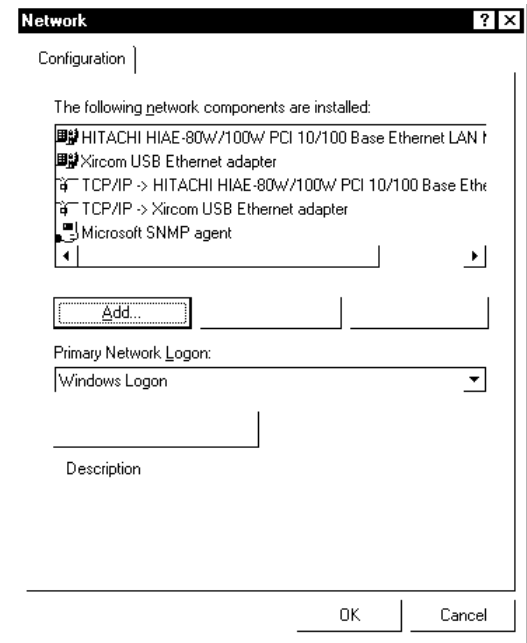


(ex. Default)

- b) Select (CL)“OK” from “TCP/IP Properties”.

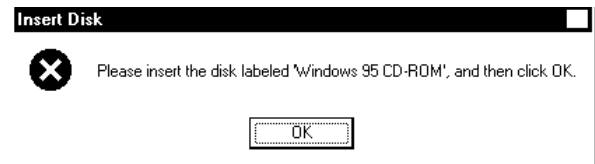
(39) <Close “Network”>

Select (CL) [OK] from “Configuration” of “Network”.

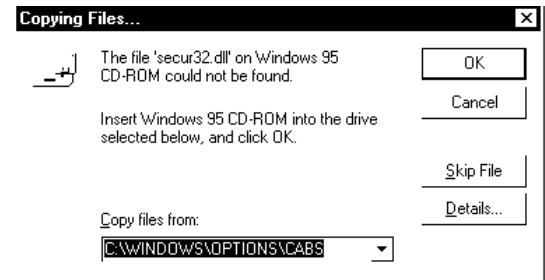


(40) If SVP displays a message, “Please insert the disk labeled 'Windows 95 CD-ROM', and then click”.

a) Select (CL) [OK] from “Insert Disk”

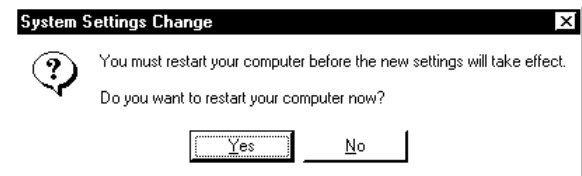


b) Input “C:\WINDOWS\OPTIONS\CABS”, and Select(CL) [OK].



(41) <Check reboot SVP>

Select (CL) [Yes] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



Go to 1-4. [REP04-410-30]

1-3. USB-LAN Driver install for Windows98

(1) <Check reboot SVP>

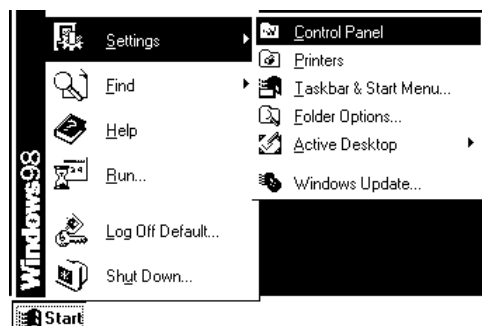
Select (CL) [Yes] in response to “To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer now?”

And wait until reboot SVP.

In case of not displaying this dialog, go to 1-4. [[REP04-410-30](#)]

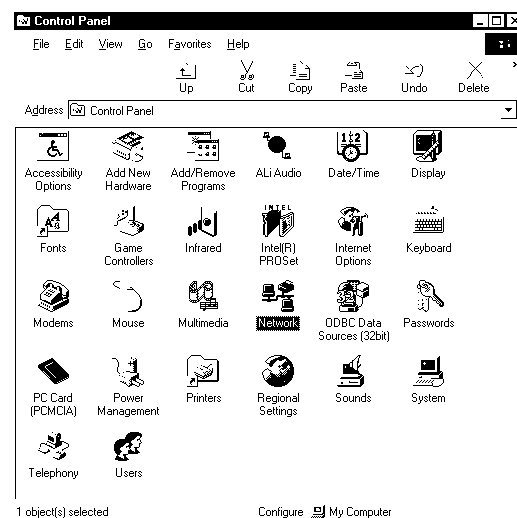
(2) <Open “Control Panel”>

Select (DR) [Settings] and then [Control Panel] from [Start]



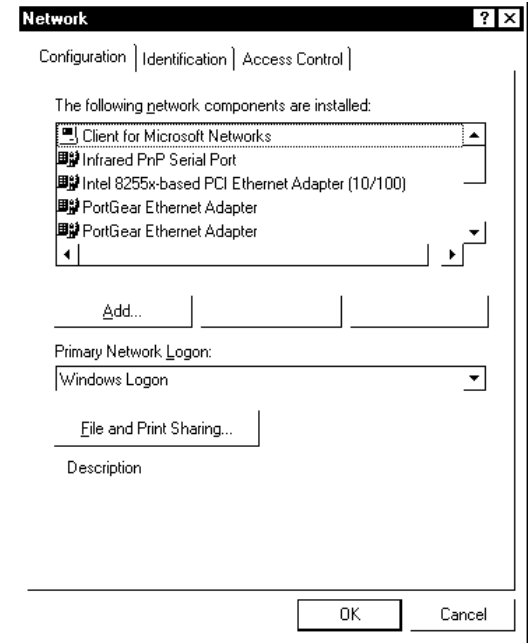
(3) <Open “Network”>

Select (DC) “Network” from “Control Panel”.



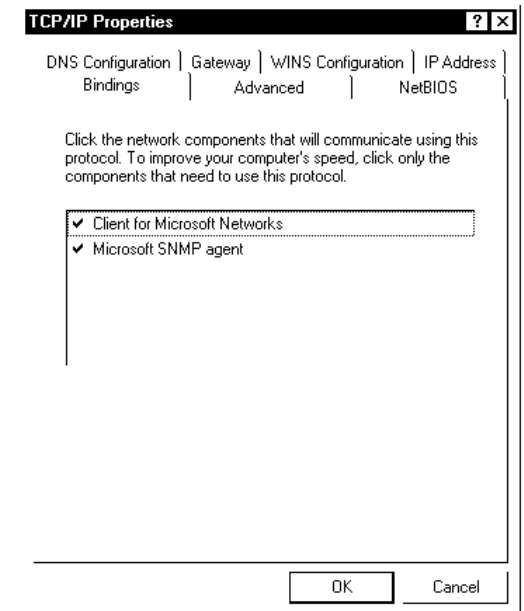
(4) <Set "TCP/IP">

Select (CL) "TCP/IP -> Intel 8255x-based PCI Ethernet Adapter (10/100)" from "Configuration", and select (CL) [Properties].



(5) <Select "Bindings">

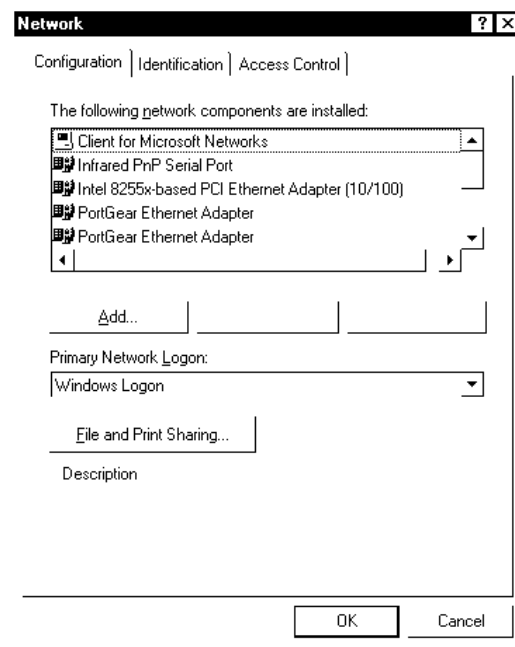
Select (CL) "Bindings"
Check box on the left of "Client for Microsoft Networks"
(with a check mark)
Select (CL) [OK].



(6) <Delete “PortGear Ethernet Adapter”>

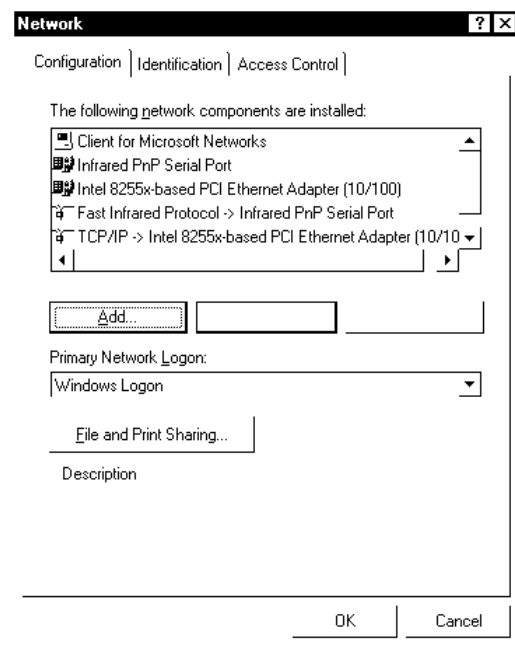
Select (CL) one of the “PortGear Ethernet Adapter” from “Configuration” of “Network”, and Select (CL) [Remove].

Delete other all “PortGear Ethernet Adapter” for this operation.



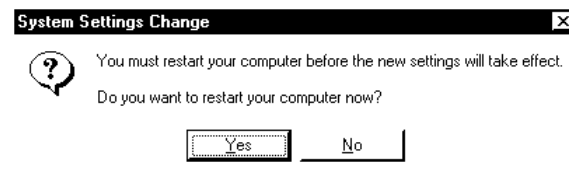
(7) <Close “Network”>

Select (CL) “OK” from “Network”.



(8) <Check reboot SVP>

Select (CL) [Yes] in response to “You must restart your computer before the new settings will take effect. Do you want to restart your computer now?”.



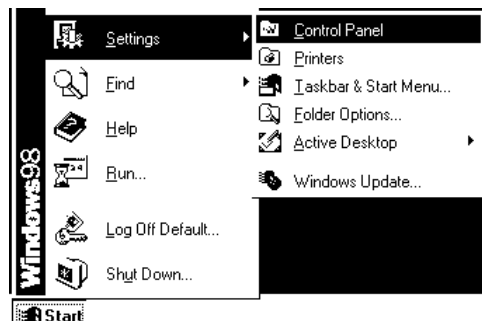
(9) <Check reboot SVP>

Select (CL) [Yes] in response to “To finish setting up your new hardware, you must restart your computer. Do you want to restart your computer now?”

And wait until reboot SVP.

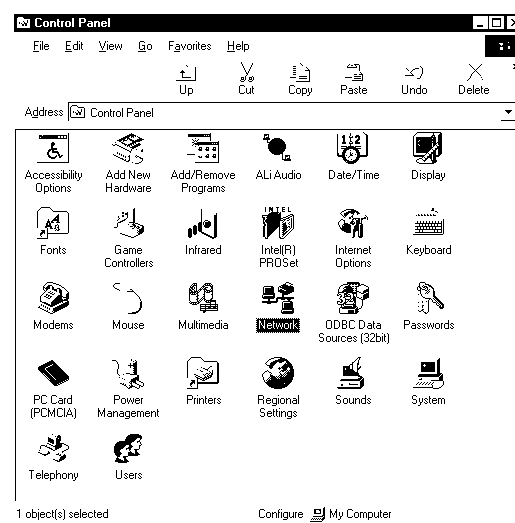
(10) <Open “Control Panel”>

Select (DR) [Settings] and then [Control Panel] from [Start]



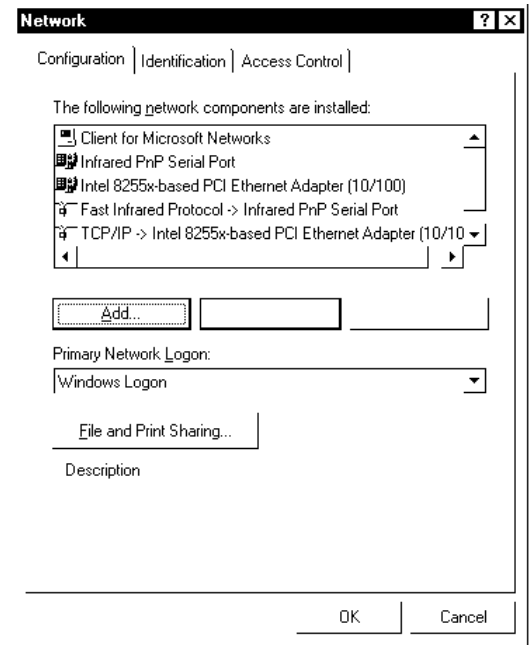
(11) <Open “Network”>

Select (DC) “Network” from “Control Panel”.



(12) <Set "TCP/IP">

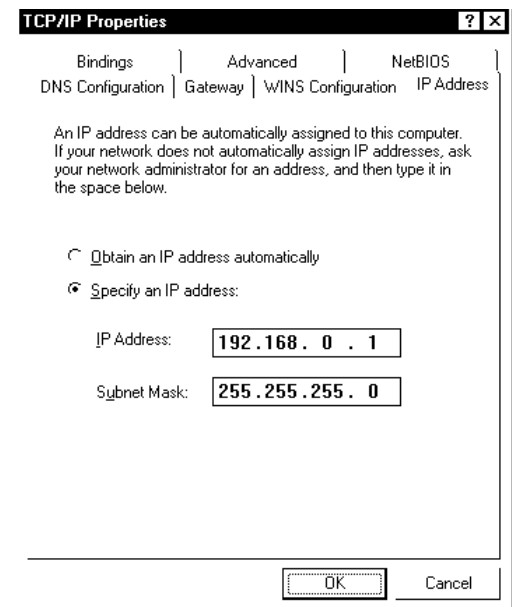
Select (CL) "TCP/IP -> PortGear Ethernet Adapter" from "Configuration", and select (CL) [Properties].



(13) <Select "IP Address" for PortGear Ethernet adapter>

Put a check mark to either "Obtain an IP address automatically" or "Specify an IP address", in reference to the work sheet.

Input "IP Address" and "Subnet Mask", in the case that it did the check mark to "Specify an IP address".

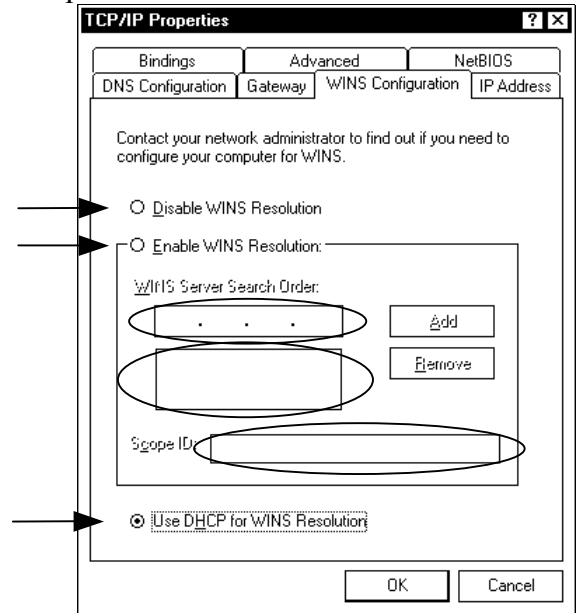


(14) <Set "IP Address" for "PortGear Ethernet adapter">

Select (CL) "WINS Configuration" from "TCP/IP Properties".

(15) <Set “WINS Configuration” for “PortGear Ethernet adapter”>

- a) Put a check mark to any of “Obtain an IP Address Automatically”, “Specify an IP Address”, in reference to the work sheet. Setting the check mark of “Use DHCP for WINS Resolution”.
- Input “Primary WINS Server”, “Secondary WINS Server” and “Scope ID”, in the case that it did the check mark to “Enable WINS Resolution”.

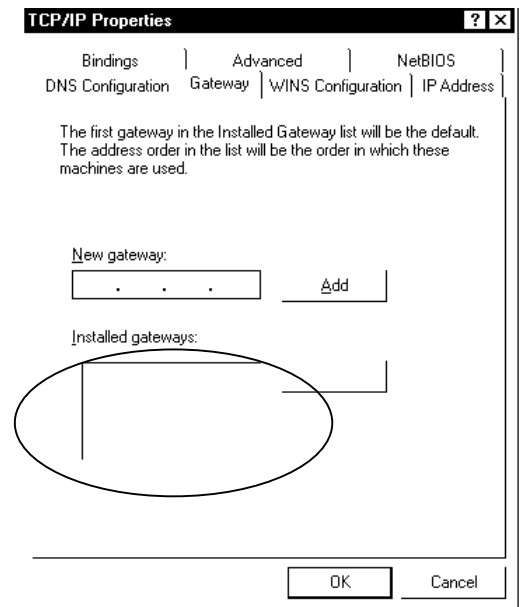


(ex. Default)

- b) Select (CL) “Gateway” from “TCP/IP Properties”.

(16) <Set “Gateway” for “PortGear Ethernet adapter”>

- a) Do the following operation, in reference to the work sheet.
- Input “Installed gateways” in “New gateway”, and select (CL) “Add...”.
- Addition other all “Installed gateways” for this operation.



(ex. Default)

- b) Select (CL) “DNS Configuration” from “TCP/IP Properties”.

(17) <Set “DNS Configuration” for “PortGear Ethernet adapter”>

a) Do the following operation, in reference to the work sheet.

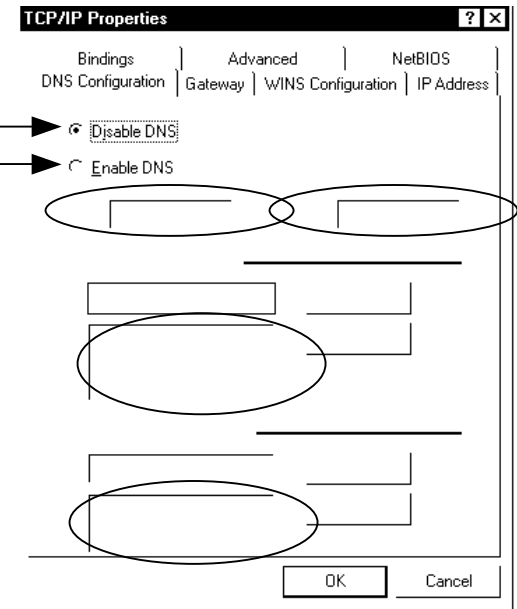
i) Put a check mark to any of “Disable DNS”, “Enable DNS”.

ii) Input “Host” and “Domain”, in the case that it did the check mark to “Enable DNS”. Input “DNS Server Search Order”, and select (CL) “Add...”.

Addition other all “DNS Server Search Order” for this operation.

Input “Domain Suffix Search Order”, and select (CL) “Add...”.

Addition other all “Domain Suffix Search Order” for this operation.

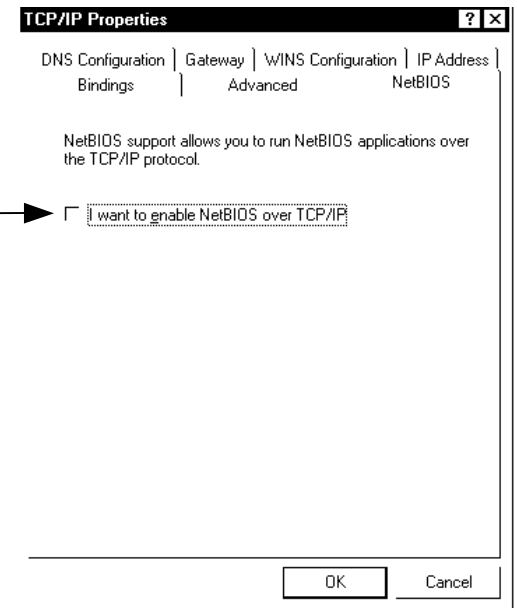


(ex. Default)

b) Select (CL) “NetBIOS” from “TCP/IP Properties”.

(18) <Check “NetBIOS” for “PortGear Ethernet adapter”>

a) Setting the check mark of “I want to enable NetBIOS over TCP/IP”, in reference to the work sheet.

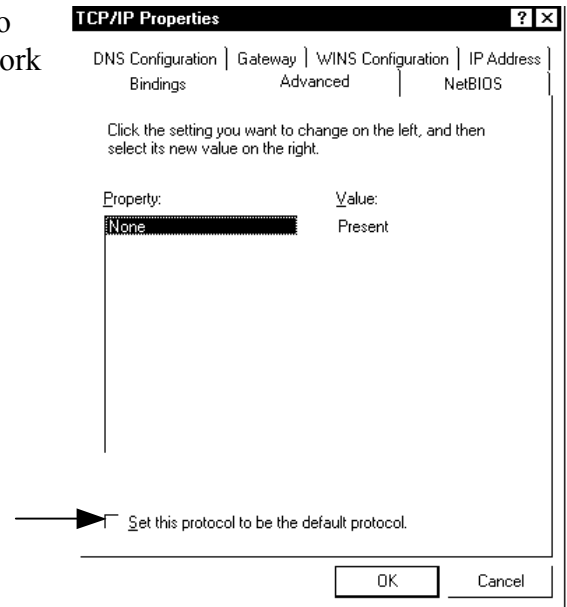


(ex. Default)

b) Select (CL) “Advanced” from “TCP/IP Properties”.

(19) <Check “Advanced” for “PortGear Ethernet adapter”>

- a) Setting the check mark of “Set this protocol to be the default protocol”, in reference to the work sheet.

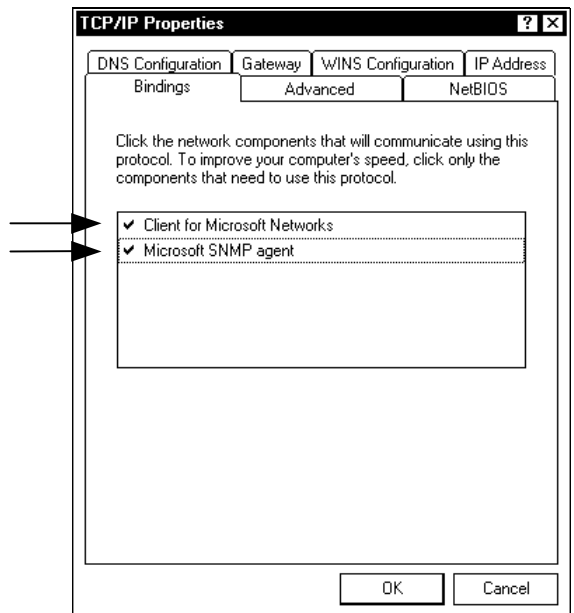


(ex. Default)

- b) Select (CL)“Binding” from “TCP/IP Properties”.

(20) <Check “Binding” for “PortGear Ethernet adapter”>

- a) Setting the check mark of “Microsoft SNMP agent”, in reference to the work sheet.

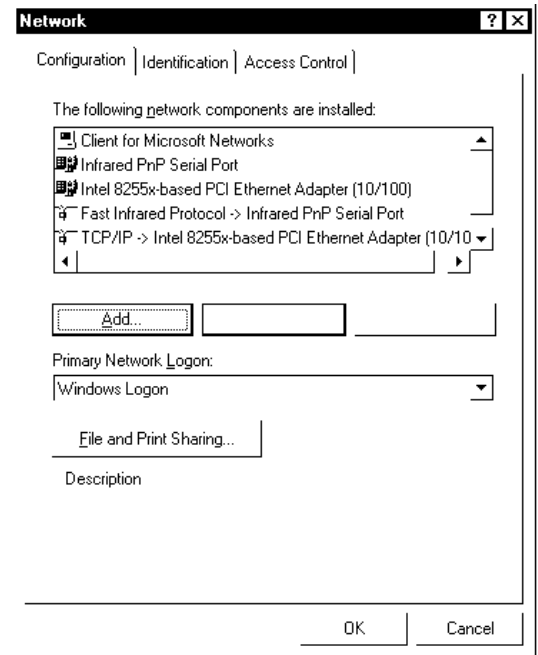


(ex. Default)

- b) Select (CL)“OK” from “TCP/IP Properties”.

(21) <Set "TCP/IP">

Select (CL) "TCP/IP -> Intel 8255x-based PCI Ethernet Adapter (10/100)" from "Configuration", and select (CL) [Properties].



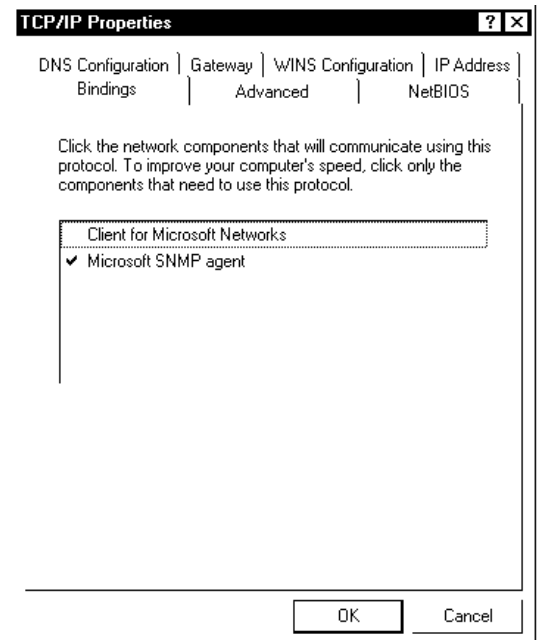
(22) < Select "Bindings">

Select (CL) "Bindings"

Check box on the left of "Client for Microsoft Networks"

(without a check mark)

Select (CL) [OK].

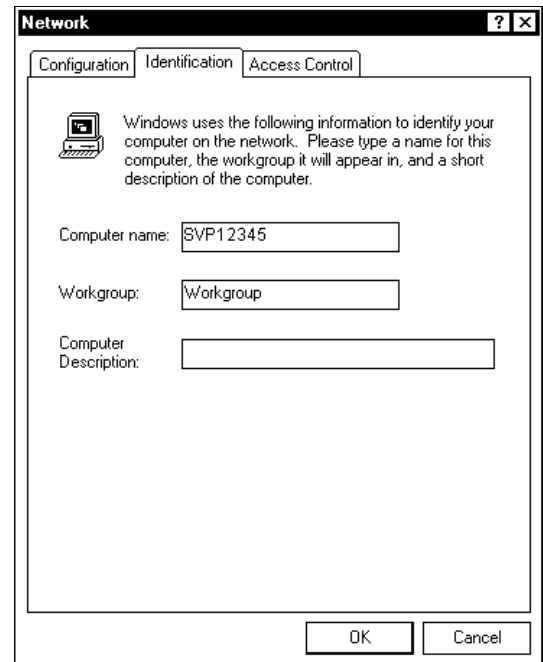


(23) < Set "Identification">

Select (CL) "Identification".

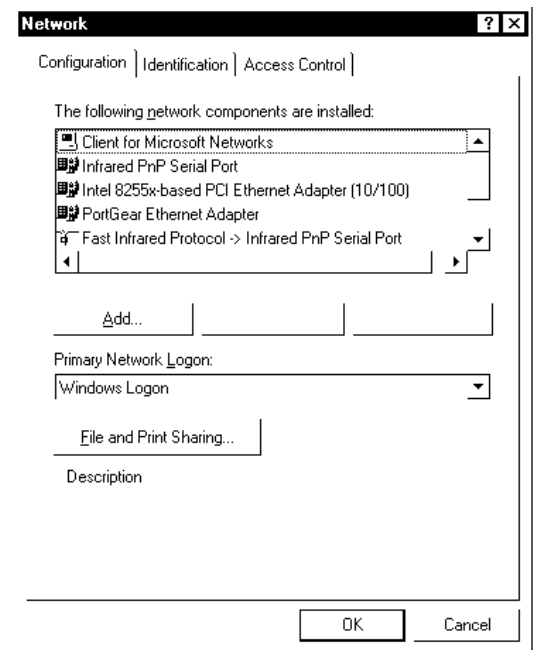
Set "SVPxxxxx" for "Computer name".

(xxxxx: DKC Serial Number)



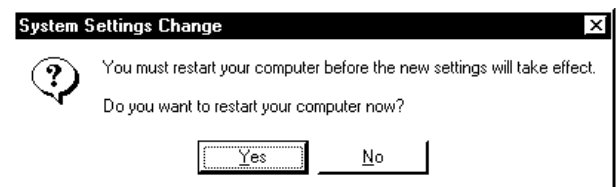
(24) <Close "Network">

Select (CL) "OK" from "Network".



(25) <Check reboot SVP>

Select (CL) [No] in response to "You must restart your computer before the new settings will take effect. Do you want to restart your computer now?".

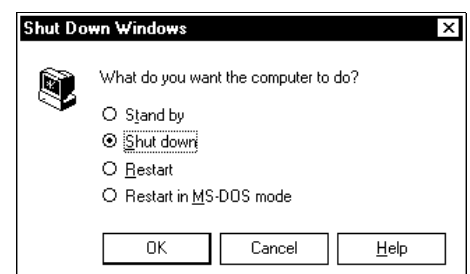


(26) <Shut down the SVP>

- a) Select (CL) [Start].
- b) Select (CL) [Shut Down].



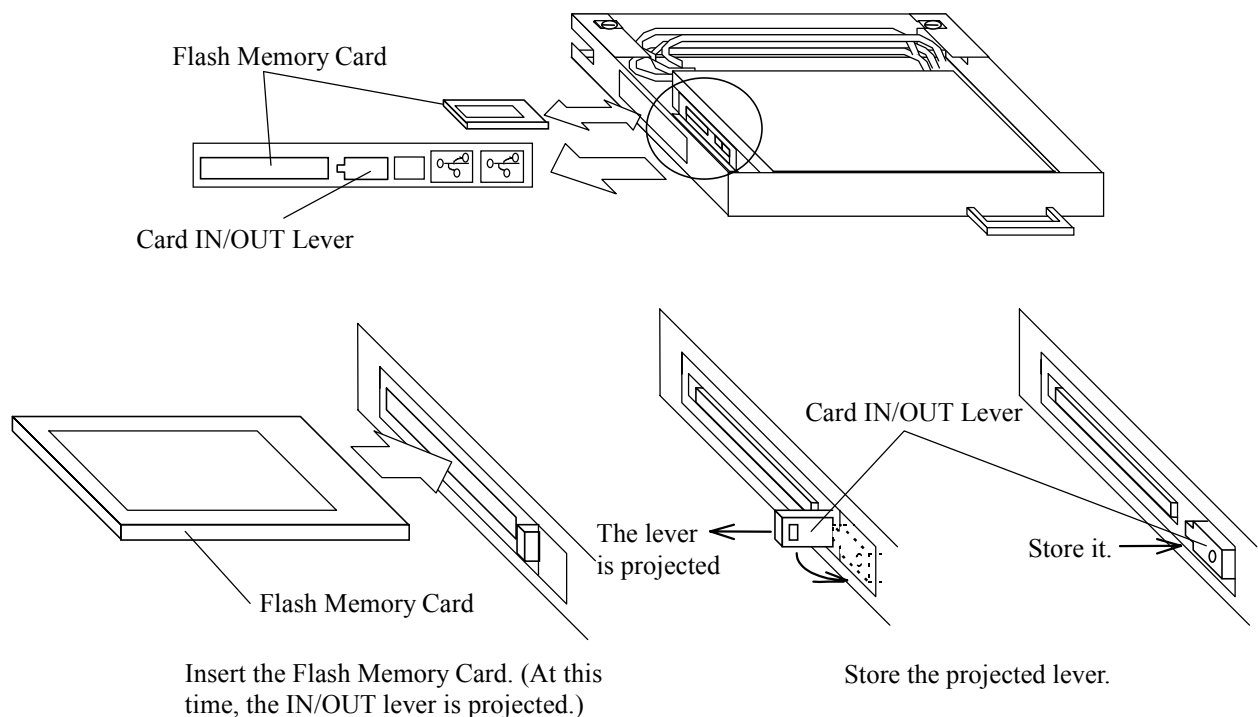
- c) Select (CL) "Shut down" from "Shut Down Windows", and select (CL) [OK] in response to "What do you want the computer to do?".



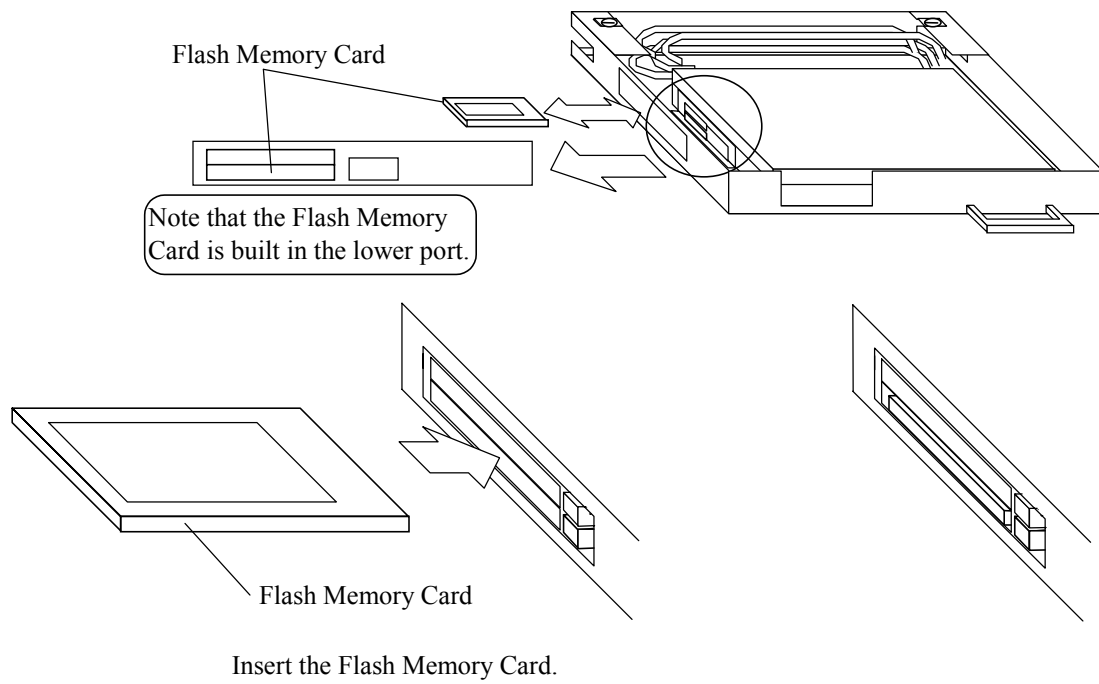
(27) <Install the FLASH CARD>

- a) Install the FLASH CARD to the SVP.

For FLORA270SX



For FLORA270GX

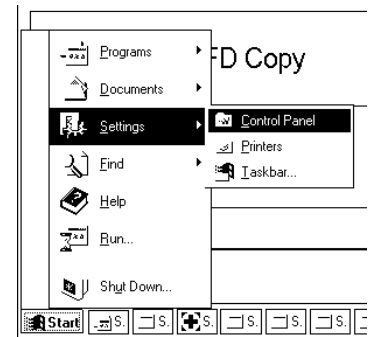


b) Press Power Switch on the SVP keyboard to start SVP.

1-4. Set Date/Time

(1) <Open [Control Panel]>

Select (DR) [Settings] and then [Control Panel] from [Start].

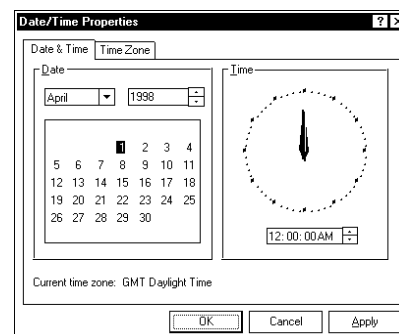


(2) <Open [Date/Time]>

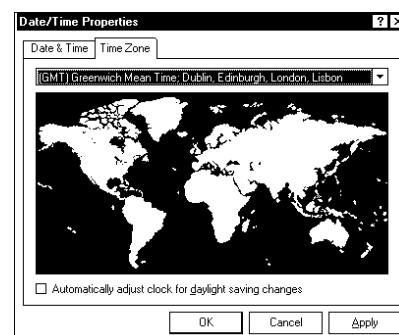
Select (DC) [Date/Time] from [Control Panel].



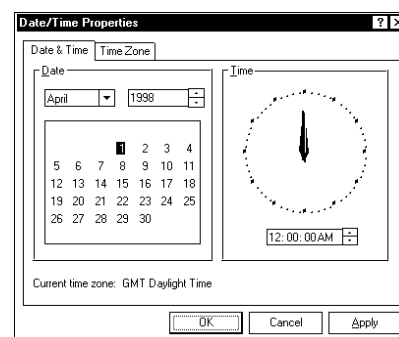
- (3) <Select [Time Zone]>
Select (CL) [Time Zone].



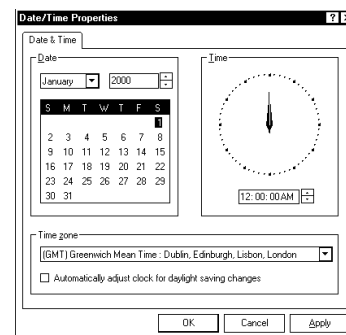
- (4) <Check the setting of [Time Zone]>
Make sure that the setting of [Time Zone] is “[GMT] Greenwich Mean Time; Dublin, Edinburgh, London, Lisbon”. Also, make sure that a check box on the left of “Automatically adjust clock for daylight saving changes” is ☐ (without a check mark).
Then, select (CL) [Date/Time].



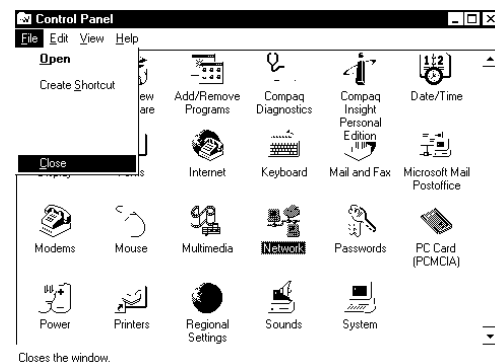
- (5) <Set the [Date/Time]>
Check if the [Date/Time] is set to the current time and date. If not, reset it correctly. Then, select (CL) [OK].
Go to step (7).



- (6) <Check the setting of [Time Zone] and set the [Date] and [Time]>
Make sure that the setting of [Time Zone] is “[GMT] Greenwich Mean Time; Dublin, Edinburgh, London, Lisbon”. Also, make sure that a check box on the left of “Automatically adjust clock for daylight saving changes” is ☐ (without a check mark).
Check if the [Date] and [Time] is set to the current time and date. If not, reset it correctly.
Then, select (CL) [OK].

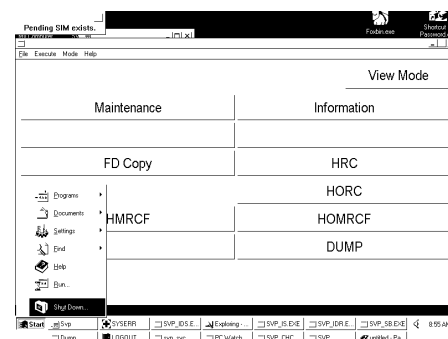


- (7) <Close “Control Panel”>
 Select (CL) [File] on “Control Panel”.
 Select (CL) [Close].



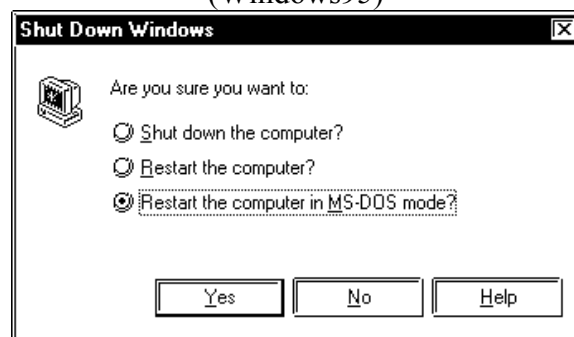
2. Restart the computer in MS-DOS mode

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



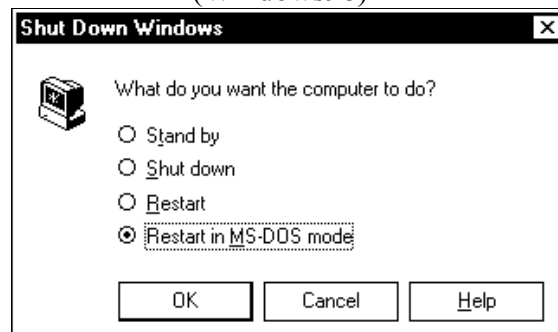
- (2) <Restart the computer in MS-DOS mode>
 (Windows95)
 Select (CL) “Restart the computer in MS-DOS mode?” from “Shut Down Windows”, and select (CL) [Yes] in response to “Are you sure you want to:”.

(Windows95)



- (Windows98)
 Select (CL) “Restart in MS-DOS mode” from “Shut Down Windows”, and select (CL) [OK] in response to “What do you want the computer to do?”.

(Windows98)



3. Installation of Micro-program

- ① Insert the CD-ROM disk into the CD-ROM drive and then wait one minute.
- ② Input “e:\setcopy.bat” in ‘DOS prompt’, and press the [Enter] key.

Note: If the MAINDIFF applied for the version of the DKCMAIN micro-program including in the CD-ROM is provided by an FD, the MAINDIFF must be installed by the online-micro-program exchange after the procedures described in this section are performed. (Refer to [MICRO-FC04-10](#))

4. Copy the SVP information to HD

- ① Input “e:\pcconf.bat” in ‘DOS prompt’ and press the [Enter] key.
- ② The message “"pcconf" change START!!” is displayed, when the message “"pcconf" change END!!” is displayed, file copy, is complete.
- ③ Press the [Enter] key.

5. 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 in Item [6] in PRE-PROCEDURE T1.

6. Reboot the SVP

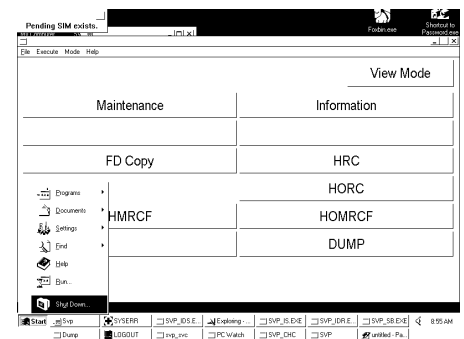
- ① Reboot the SVP by [Alt], [Ctrl], and [Del] keys simultaneously.

7. Installation of Program group and item

- ① Select (CL) [Start]. Select (CL) [Run...].
- ② Input "e:\setup.exe" on 'open', and select (CL) [OK]. The 'SVP' and the 'Startup' groups will be made.

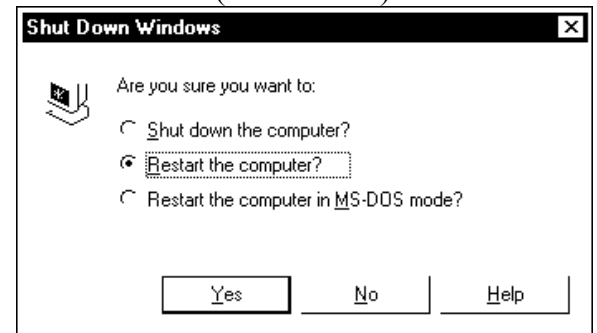
7-1. Reboot the SVP

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



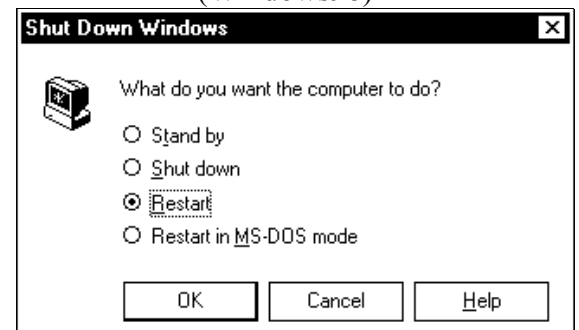
- (2) <Reboot the SVP>
(Windows95)
Select (CL) "Restart the computer?" from "Shut Down Windows", and select (CL) [Yes] in response to "Are you sure you want to:".

(Windows95)



- (Windows98)
Select (CL) "Restart" from "Shut Down Windows", and select (CL) [OK] in response to "What do you want the computer to do?".

(Windows98)



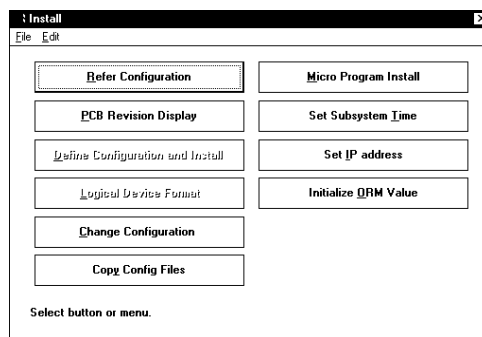
8. Set IP address of SVP

(1) <Open [Install]>

Select (CL) [Install] from 'SVP'.

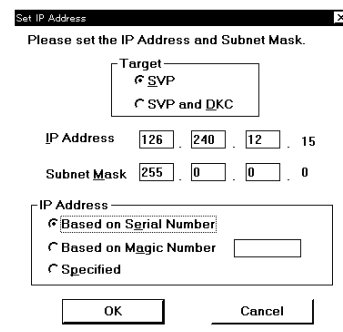
(2) <Select [Set Subsystem IP Address...]>

Select (CL) [Set IP Address...] from 'Install'.



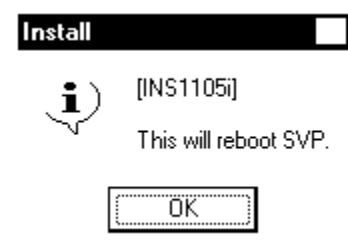
(3) <Set IP Address>

Select (CL) [SVP] from [Target], confirm "IP Address" and "Subnet Mask". Select (CL) [OK].



(4) <Check SVP reboot>

Select (CL) [OK].



9. TOD Setting

Wait a few minutes, message “Loading SVP Program... SVP requests to DKC can not be performed presently. Please wait...” will be extinguished. Then set TOD.

See [SVP02-10](#).

10. Load the Configuration from the SM to the SVP's HDD

(1) <Open [Maintenance]>

Select (CL) [Maintenance] form ‘SVP’.

(2)

Check “Connection error occurred SVP-DKC.” is not displayed.

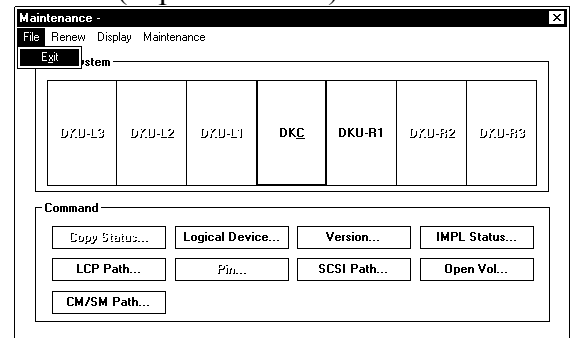
If “Connection error occurred SVP-DKC” is displayed, see [TRBL05-60](#).

Blank Sheet

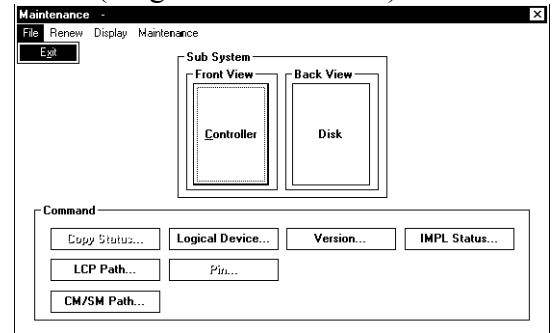
REV.3	Jan.2000	Apr.2000	Jul.2000	Nov.2000		
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- (3) <Select [Exit]>
 Select (CL) [File] from the “Maintenance”.
 Select (CL) [Exit].

(Separate Model)



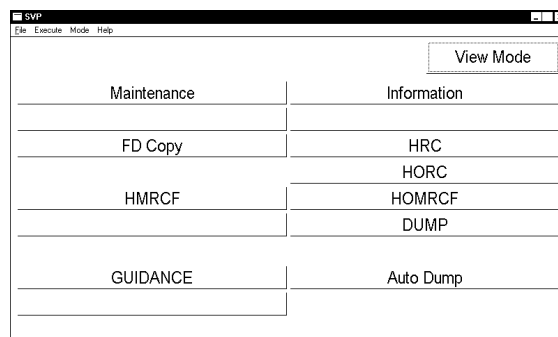
(Single Cabinet Model)



11. Setting of SNMP Option

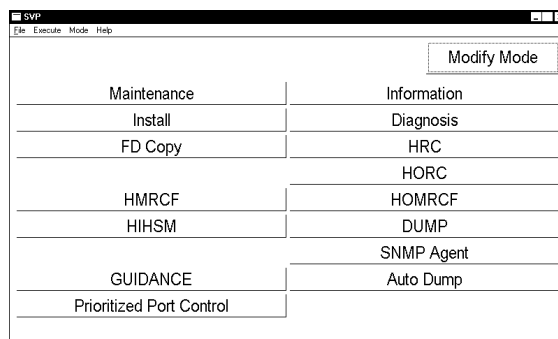
(1) <Change “Modify Mode”>

Select (CL) “View Mode” from “SVP”.



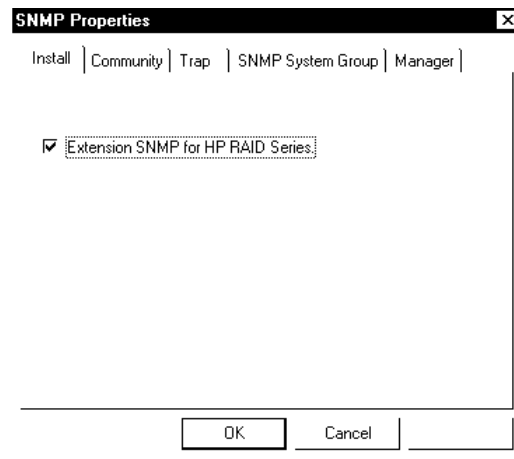
(2) <Open “SNMP Properties”>

Select (CL) “SNMP Agent” from “SVP”.

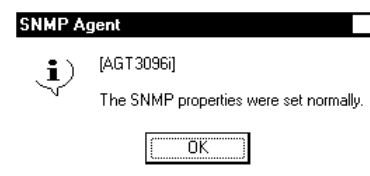


(3) <Close “SNMP Agent”>

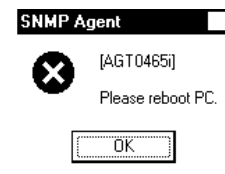
a) Select (CL) “OK” from “SNMP Properties”.



b) Select (CL) “OK” from “SNMP Agent”.



c) Select (CL) “OK” from “SNMP Agent”.



(4) <Reboot the SVP>

a) Select (CL) [Start].

b) Select (CL) [Shut Down].

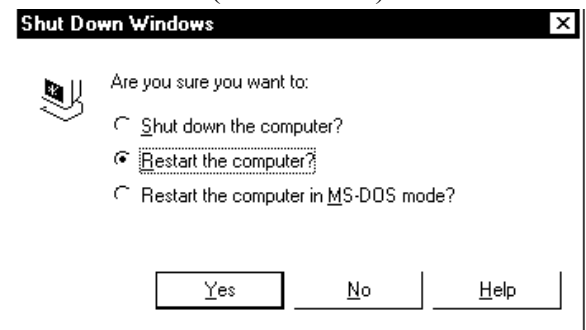


c)

(Windows95)

Select (CL) “Restart the computer?” from “Shut Down Windows”, and select (CL) [Yes] in response to “Are you sure you want to:”

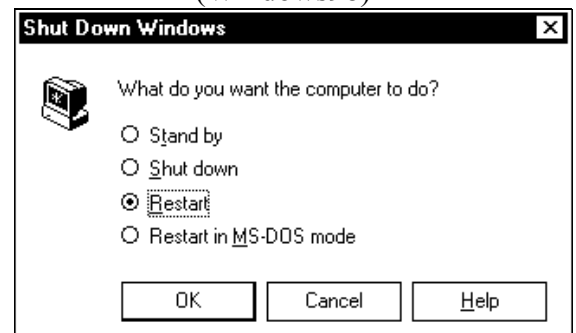
(Windows95)



(Windows98)

Select (CL) “Restart” from “Shut Down Windows”, and select (CL) [OK] in response to “What do you want the computer to do?”.

(Windows98)



12. Confirm status

Confirm the status display.

If button is valid, go to [12].

If button is blinking, replace the FLASH CARD.

13. Configuration Back

Make a backup copy of the configuration in the CONFIG FD. (See [MICRO-FC08-10](#))

14. SIM Complete

See [SVP02-510](#).

- Restore Remote Console Settings

If the subsystem is connected to the remote console, request the following work to the remote console administrator.

‘Entry operation’ to report SIMs to the remote console.

Presetting SNMP Agent parameters.

[End of POST-PROCEDURE][9] SVP, SVP&FLASH CARD

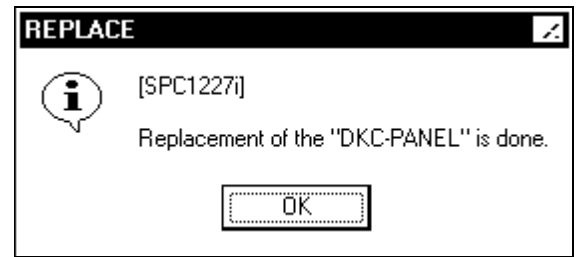
- Restore HIHSM Settings

If the HIHSM is used, setting the parameter of HIHSM again.

[10] ending check

1. <Check end of replacement>

Select (CL) [OK] in response to "Replacement of the "XXXXX" is done."



(ex. DKC-PANEL)

2. <Confirm status>

• DKCMN 1/2

Confirm the status display.

If button is valid, go to [12] (REP04-540).

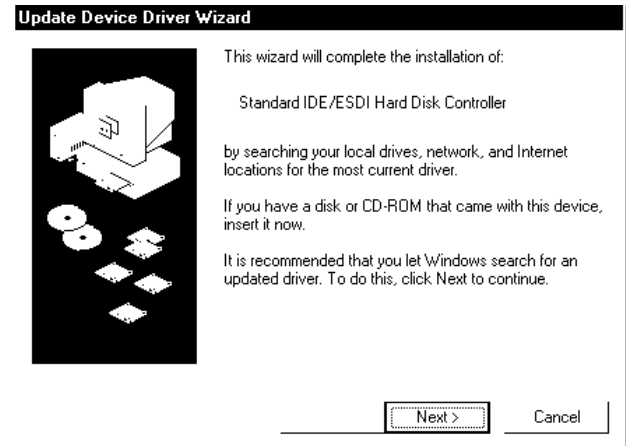
If button is blinking, replace the target part again, or see TROUBLE SHOOTING SECTION.

[End of POST-PROCEDURE]

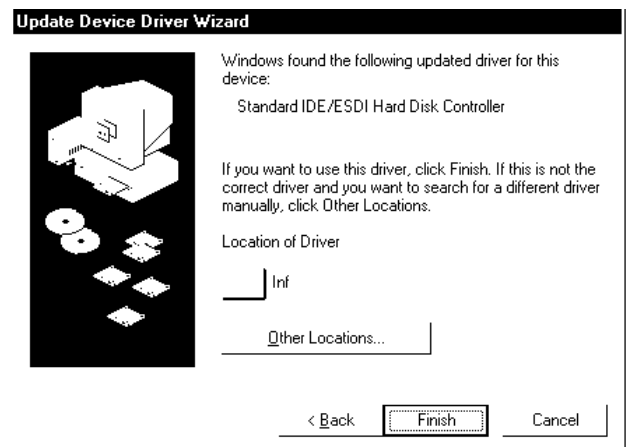
• FLASH CARD

If SVP displays a message, “Standard IDE/ESDI Hard Disk Controller” from “Update Device Driver Wizard”.

- a) Select (CL) [Next] from “Update Device Driver Wizard”.



- b) Select (CL) [Finish] from “Update Device Driver Wizard”.

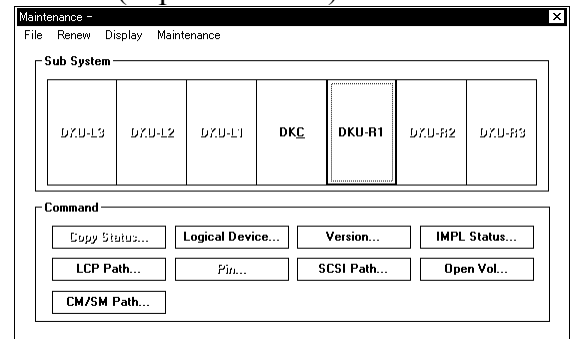


Change the mode to [Modify Mode].

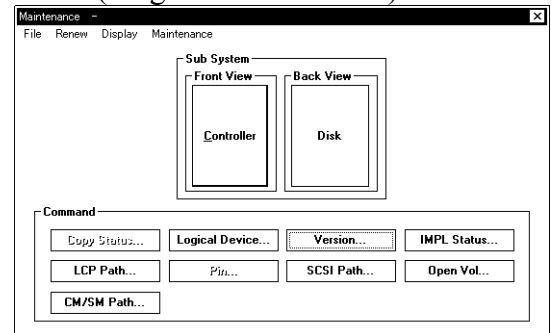
Select (CL) [Maintenance].

'Maintenance' window is displayed.

(Separate Model)



(Single Cabinet Model)



Confirm the status display.

If button is valid.

(Separate Model)

Close 'DKC' window.

Close 'Maintenance' window.

(Single Cabinet Model)

Close 'Controller' window.

Close 'Maintenance' window.

If button is blinking, refer to SIM and replace the target part again, or see TROUBLE SHOOTING SECTION.

[End of POST-PROCEDURE]

- Other PCB

Go to [12] ([REP04-540](#)).

Blank Sheet

REV.1	Jan.2000	Apr.2000				
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Blank Sheet

REV.1	Jan.2000	Apr.2000				
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Blank Sheet

REV.1	Jan.2000	Apr.2000				
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Blank Sheet

REV.3	Jan.2000	Apr.2000	Jul.2000	Nov.2000		
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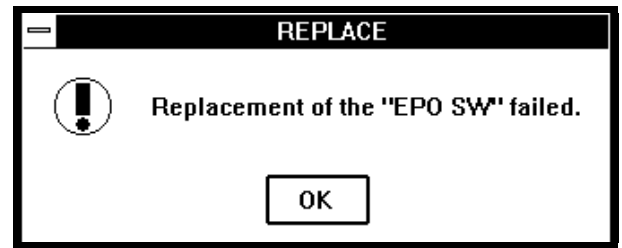
[11] Replacement error

1.

The error message “Replacement of the
"XXXXX" failed.” is displayed as shown on
the right.

Select (CL) [OK].

[End of Replacement]



(ex. EPO SW)

[12] SIM Complete

See [SVP02-510](#).

(Separate Model)

Close 'DKC' window.

Close 'Maintenance' window.

(Single Cabinet Model)

Close 'Controller' window.

Close 'Maintenance' window.

[End of POST-PROCEDURE]

Blank Sheet

Blank Sheet

[POST-PROCEDURE t3]

— OUTLINE —

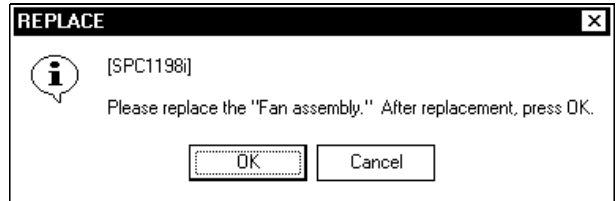
- ① Specify end of special part replacement.
- ② Reinstall related parts.
- ③ Start environment monitor.
- ④ SIM Complete

[1] START OF POST-PROCEDURE

1. <Check special part replacement>

Select (CL) [OK] in response to “Please replace the "XXXXX" After replacement, press OK.”.
Valid “XXXXX” values are listed below.

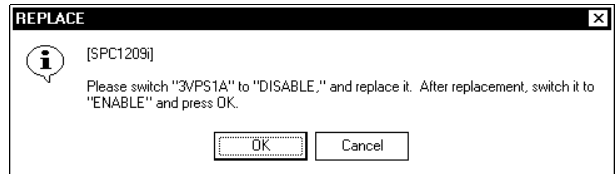
- ‘Fan assembly’ -----Go to [2] [\(REP04-590\)](#)
- ‘BATTERY’ -----Go to [2] [\(REP04-590\)](#)
- ‘Thermostat assembly’
-----Go to [2] [\(REP04-590\)](#)
- ‘BATCTR’ -----Go to [2] [\(REP04-590\)](#)



(ex. Fan assembly)

Select (CL) [OK] in response to “Please switch "xxPSn" to "DISABLE," and replace it. After replacement, switch it to "ENABLE" and press OK.”.

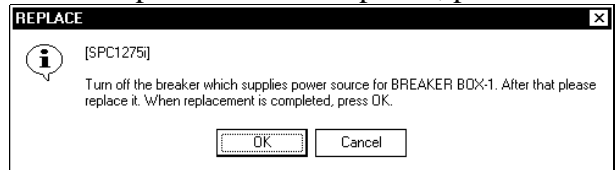
- ‘xxPSn’ -----Go to [2] [\(REP04-590\)](#)



(ex. 3VPS1A)

Select (CL) [OK] in response to “Turn off the breaker which supplies power source for BREAKER BOX-n. After that please replace it. When replacement is completed, press OK.”.

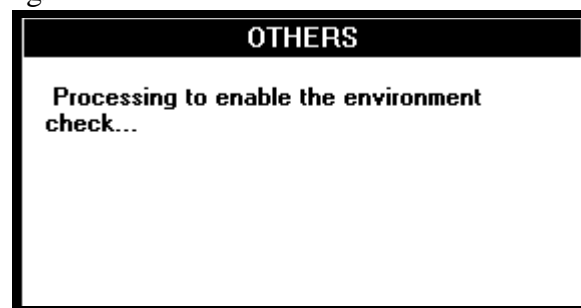
- ‘BREAKER BOX-n’
-----Go to [2] [\(REP04-590\)](#)
- ‘AC BOX-Cn’ -----Go to [2] [\(REP04-590\)](#)



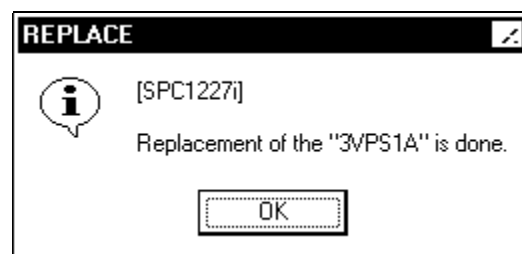
(ex. BREAKER BOX)

[2] Fan assembly, PS, BATTERY, BATCTR, Thermostat assembly, BREAKER BOX, AC BOX(DKC)

1. <Checking the environment monitor start processing>
 "Processing to enable the environment check..." is displayed.



2. <Checking the end of replacement>
 Select (CL) [OK] in response to "Replacement of the "XXXXXX" is done.".



(ex. 3VPS1A)

3. <Confirm status>
 - Fan assembly, PS, BATTERY, BATCTR, Thermostat assembly
 Confirm the status display.
 If button is valid, go to [3] [\(REP04-600\)](#).
 If button is blinking, replace the target part again, or see TROUBLE SHOOTING SECTION.
 [End of POST-PROCEDURE]
 - Breaker Box-n, AC BOX-Cn
 Go to [3] [\(REP04-600\)](#).

[3] Confirm Cluster

- PS, BREAKER BOX, AC BOX(DKC)
If Cluster is blocked, recover it.
See [SVP02-970](#).
Go to [4] (REP04-600).
- Fan assembly, BATTERY, BATCTR, Thermostat assembly
Go to [4] (REP04-600).

[4] SIM Complete

See [SVP02-510](#).

(Separate Model)

Close 'Cluster-X' window.

Close 'DKC' window.

Close 'Maintenance' window.

(Single Cabinet Model)

Close 'Cluster-X' window.

Close 'Controller' window.

Close 'Maintenance' window.

[End of POST-PROCEDURE]

[POST-PROCEDURE t4]

— OUTLINE —

- ① Specify end of special part replacement.
- ② Reinstall related parts.
- ③ Start environment monitor.
- ④ DKU Path Inline Test.
- ⑤ SIM Complete.

[1] Start of POST-PROCEDURE

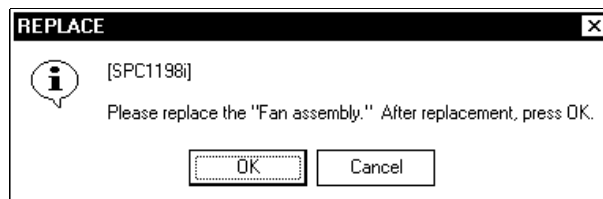
1. <Making part replacement check>

• Fan assembly

Select (CL) [OK] in response to “Please replace the "XXXXX" After replacement, press OK.”

Valid “XXXXX” values are listed below.

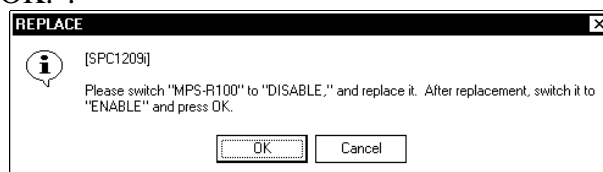
‘Fan assembly’ ----- Go to [2]-2 (REP04-630)



• MPS-X, DKUMN-X

Select (CL) [OK] in response to “Please switch "XXXXX" to "DISABLE," and replace it. After replacement, switch it to "ENABLE" and press OK.”.

‘MPS-X’ ----- Go to [2]-2 (REP04-630)



(ex. MPS-R100 of Separate Model)

(Separate Model)

‘DKUMN-R3n’, ‘DKUMN-L3n’

----- Go to [2]-2 (REP04-630)

Other ‘DKUMN-X’

----- Go to [2] (REP04-630)

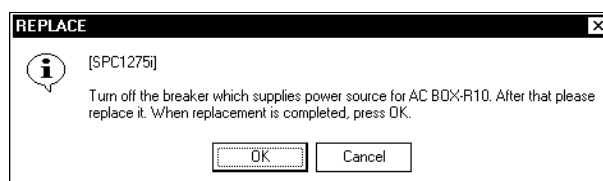
(Single Cabinet Model)

‘DKUMN-X’ ----- Go to [2]-2 (REP04-630)

• AC BOX-X(3 Phase type for Separate Model), AC BOX-X(1 Phase Type for Separate Model), AC BOX-X(Single Cabinet Model)

Select (CL) [OK] in response to “Turn off the breaker which supplies power source for AC BOX-X. After that please replace it.

When replacement is completed, press OK.”.



(ex. AC BOX-R10 of Separate Model)

‘AC BOX-X’ ----- Go to [2]-2 (REP04-630)

[2] DKUMN, Fan assembly, MPS, AC BOX(3 Phase Type for Separate Model), AC BOX(1 Phase Type for Separate Model), AC BOX(Single Cabinet Model)

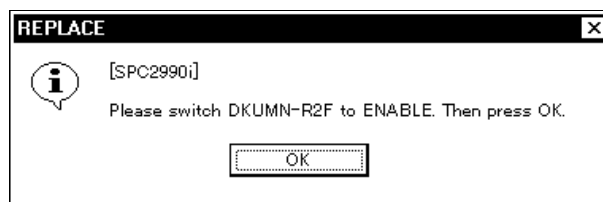
1. <Enabling DKUMN>

When Separate Model, if DKUMN-X (listed below) is installed, this message is displayed. Enable DKUMN in response to "Please switch "DKUMN-X" to "ENABLE." Then press OK."

After confirming DKUMN-X is enabled, select (CL) [OK].

DKUMN-X (Separate Model):

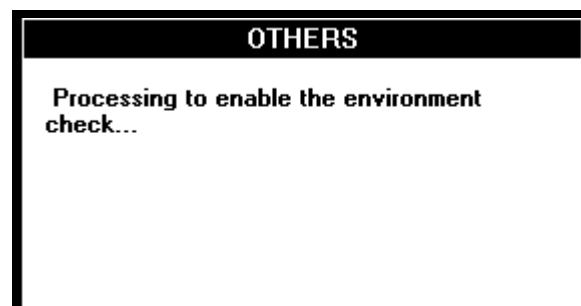
Replace parts	X
DKUMN-R1F	R2F, R3F
DKUMN-R1R	R2R, R3R
DKUMN-R2F	R3F
DKUMN-R2R	R3R
DKUMN-L1F	L2F, L3F
DKUMN-L1R	L2R, L3R
DKUMN-L2F	L3F
DKUMN-L2R	L3R



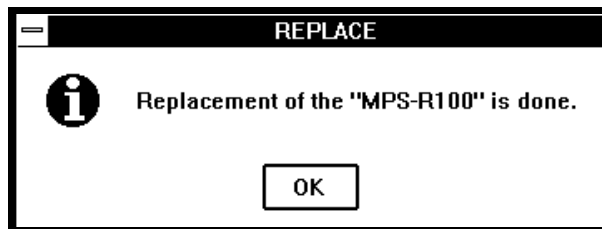
(ex. Replacement of the DKUMN-R1F)

2. <Checking environment monitor start processing>

"Processing to enable the environment check..." is displayed.



3. <Checking end of replacement>
Select (CL) [OK] in response to “Replacement of the "XXXXXX" is done.”.



(ex. MPS-R100 of Separate Model)

4. <Confirm status>
Confirm the status display.
If button is valid, go to [4] ([REP04-650](#)).
If button is blinking, replace the target part again, or TROUBLE SHOOTING SECTION.

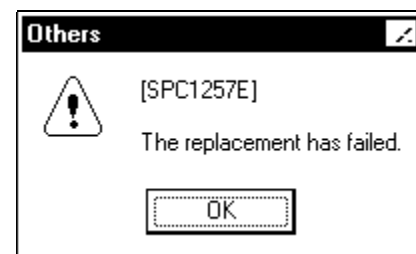
[End of POST-PROCEDURE]

[3] Error

1. <Replacement error>

Select (CL) [OK] in response to “The replacement has failed.”.

[End of POST-PROCEDURE]



[4] Confirm Cluster

- MPS-X, AC BOX-X(3 Phase Type for Separate Model), AC BOX-X(1 Phase Type for Separate Model), AC BOX(Single Cabinet Model)

If Cluster is blocked, recover it.

See [SVP02-970](#).

Go to [5] (REP04-650).

- Fan assembly, DKUMN-X

Go to [5] (REP04-650).

[5] SIM Complete

See [SVP02-510](#).

(Separate Model)

Close 'HDU-X' window. (When MPS-X or FAN)

Close 'DKU-X' window.

Close 'Maintenance' window.

(Single Cabinet Model)

Close 'HDU-X' window. (When MPS-X or Fan assembly)

Close 'Disk' window.

Close 'Maintenance' window.

[End of POST-PROCEDURE]

[POST-PROCEDURE u]

— OUTLINE —

- ① Execute CUDG on P-DEV.
- ② Specify recovery.
- ③ Correction copy
- ④ Reset ORM Error Count on the P-DEV.
- ⑤ Reset Threshole Counter
- ⑥ SIM Complete

NOTICE

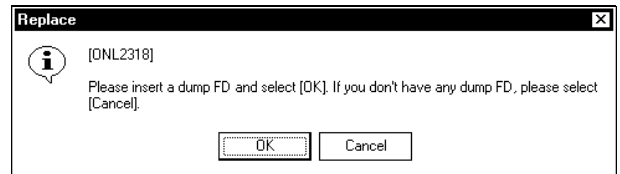
This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

1. <Check the beginning of recovery>

Please insert floppy disk and select (CL) [OK].
Failure information of the physical device is written to the floppy disk.



[After the complete of writting failure information:]

“Please remove the FD.” is displayed.

Please remove the floppy disk and select (CL) [OK].

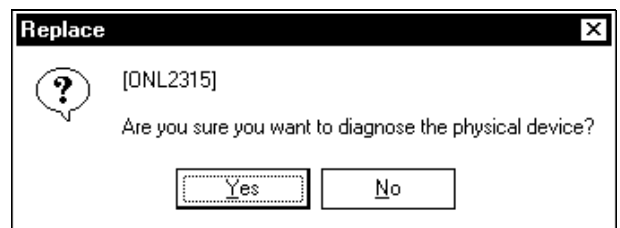


2. <Spin up the Physical Drive>

“Spinning up...” is displayed.

3. <DKU INLINE>

Select (CL) [No] in response to “Are you sure you want to diagnose the physical device?”.

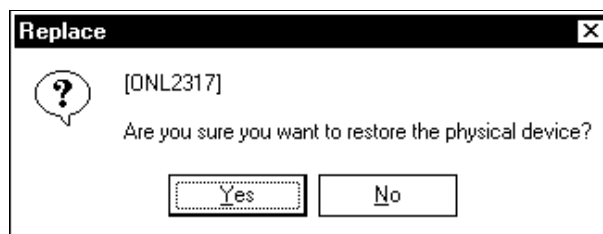


NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

4. <Restore Physical Drive>

Select (CL) [Yes] in response to “Are you sure you want to restore the physical device?”.

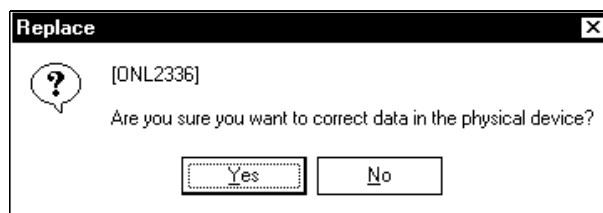


5. <Checking the Drive Status>

“Checking...” is displayed.
Device is still blocked.

6. <Check beginning of correction copy>

Select (CL) [Yes] in response to “Are you sure you want to correct data in the physical device?”.



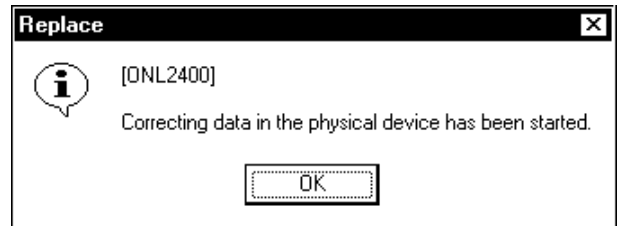
7. <Correcting data>

“Correcting...” is displayed.

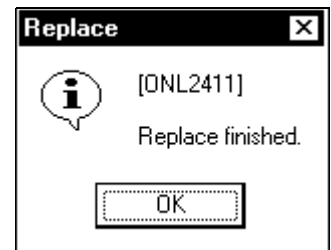
NOTICE

This processing is a special operation for detecting a cause of a Fibre loop error. Ask the technical support center about the appropriateness of the operation.

8. <Check the starting of Correction copy>
Select (CL) [OK] in response to “Correcting data in the physical device has been started.”.



9. <Check the end of P-DEV recovery>
Select (CL) [OK] in response to “Replace finished.”.



10. <SIM Complete>
Refer to [SVP02-510](#).