PERIODIC CHECK SECTION

Contents

1. PERIODIC CHECK LIST

The following table shows the items of the periodic check for the DKC and DKU.
When the parts are replaced , refer to 'PARTS REPLACEMENT SECTION' of this manual.

Table 1-1 Periodic Check List

No.	Item	Tools	Frequency of Periodic Check	Check Time	DKC DKU	Reference Page
1	Check of DC voltage	• Digital voltmeter • Voltage check fixture	Once per year	5 min. per logical part	DKC DKU	PERIOD 02-10 to PERIOD 02-30
2	Check of air filter	• Vacuum cleaner	Once per year	10 min.	DKC DKU	PERIOD 03-10
3	Check and Replacement of battery	• Philips screwdriver	See Table 4.2-2 on page PERIOD 04-20	Replacement time: 10 min. per battery.	DKC	PERIOD 04-10 to PERIOD 04-20

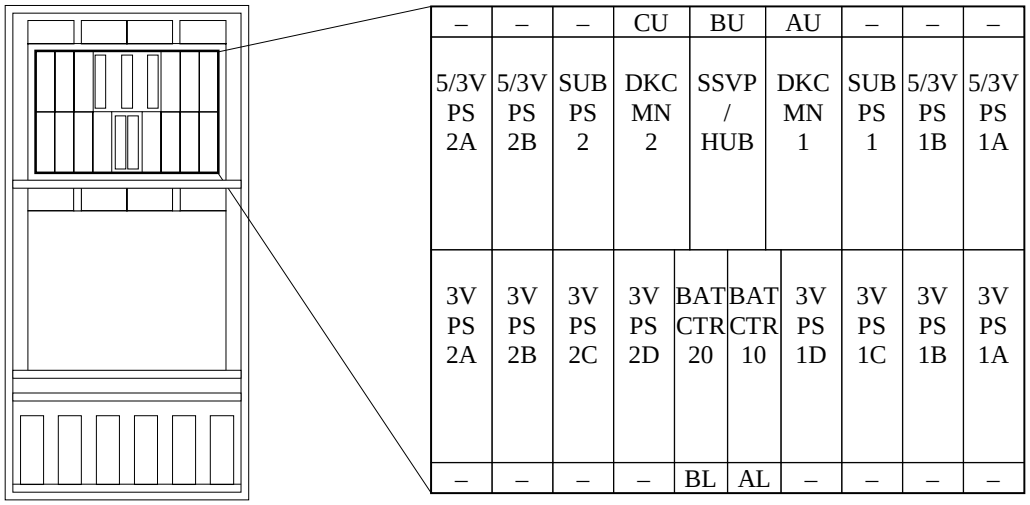
2. Check of DC Voltage

a. Measure DC +3.3V, DC +5V, DC +12V, and DC +16V current at the check point with a digital voltmeter.
Refer to the following table and figure:
Table 2-1 'Range of Acceptable DC Voltage' on PERIOD 02-10
Fig. 2-1 'Location of Power Supplies' on PERIOD 02-20
Fig. 2-2 'Location of Voltage Check Point' on PERIOD 02-30

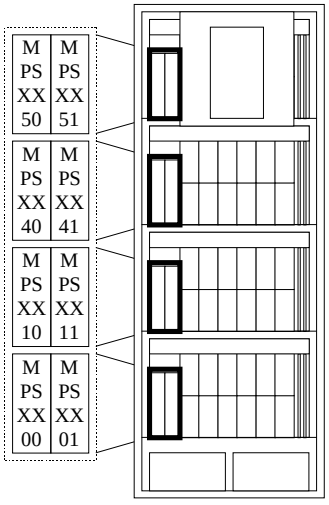
Table 2-1 Range of Acceptable DC Voltage

No.	Logic Part	Standard DC Voltage (Between +DC and GRD)	Acceptable Range (Between +DC and GRD)	Power Supply Location	Remarks
1	Cluster 1	+5V/+3.3V	5V : +4.95V to +5.25V	5/3VPS1A	
2		(5/3VPS)	3.3V : +3.30V to +3.60V	5/3VPS1B	
3		+3.3V	3.3V : +3.30V to +3.60V	3VPS1A	
4		(3VPS)		3VPS1B	
5				3VPS1C	
6				3VPS1D	
7		+5V/+12V/+16V	5V : +4.70V to +5.40V	SUBPS1	
8		(SUBPS)	12V : +11.2V to +12.9V		
9			16V : +15.4V to +17.7V		
10	Cluster 2	+5V/+3.3V	5V : +4.95V to +5.25V	5/3VPS2A	
11		(5/3VPS)	3.3V : +3.30V to +3.60V	5/3VPS2B	
12		+3.3V	3.3V : +3.30V to +3.60V	3VPS2A	
13		(3VPS)		3VPS2B	
14				3VPS2C	
15				3VPS2D	
16		+5V/+12V/+16V	5V : +4.70V to +5.40V	SUBPS2	
17		(SUBPS)	12V : +11.2V to +12.9V		
18			16V : +15.4V to +17.7V		
19	HDU-××0	+5V/+12V	5V : +4.80V to +5.31V	MPS××00	
20		(Multi PS)	12V : +11.45V to +12.65V	MPS××01	
21	HDU-××1	+5V/+12V	5V : +4.80V to +5.31V	MPS××10	
22		(Multi PS)	12V : +11.45V to +12.65V	MPS××11	
23	HDU-××2	+5V/+12V	5V : +4.80V to +5.31V	MPS××20	
24		(Multi PS)	12V : +11.45V to +12.65V	MPS××21	
25	HDU-××3	+5V/+12V	5V : +4.80V to +5.31V	MPS××30	
26		(Multi PS)	12V : +11.45V to +12.65V	MPS××31	
27	HDU-××4	+5V/+12V	5V : +4.80V to +5.31V	MPS××40	
28		(Multi PS)	12V : +11.45V to +12.65V	MPS××41	
29	HDU-××5	+5V/+12V	5V : +4.80V to +5.31V	MPS××50	
30		(Multi PS)	12V : +11.45V to +12.65V	MPS××51	
31	HDU-××6	+5V/+12V	5V : +4.80V to +5.31V	MPS××60	
32		(Multi PS)	12V : +11.45V to +12.65V	MPS××61	
33	HDU-××7	+5V/+12V	5V : +4.80V to +5.31V	MPS××70	
34		(Multi PS)	12V : +11.45V to +12.65V	MPS××71	

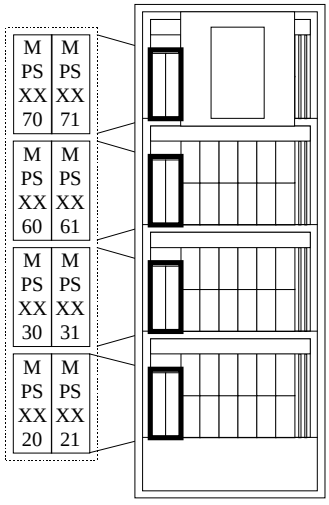
b. To check the output voltage of the power supplies, measure it with the voltmeter, by connecting the voltmeter to the voltage check point.
If the output voltage of the power supply is not within the acceptable DC voltage, replace it to the spare part. Refer to REPLACE SECTION [REP01-180].



Rear View of DKC



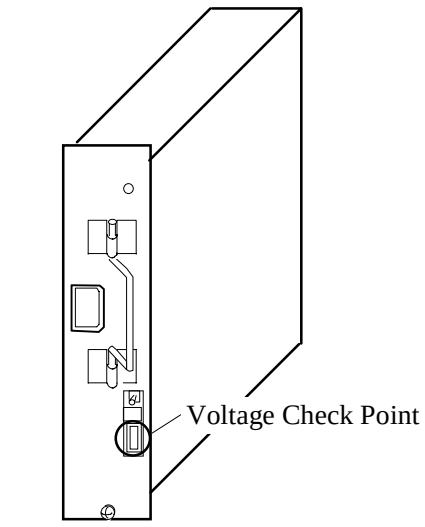
Front View of DKU



Rear View of DKU

Note) XX: DKU Location No.
R1, R2, R3, L1, L2, L3

Fig.2-1 Location of Power Supplies



Power Supply

Voltage Check Point

Pin No.	DC Voltage		
	5/3VPS	3VPS	SUBPS
1	+5V	+3.3V	+5V
2	+3.3V	—	+12V
3	—	—	+16V
4	GRD	GRD	GRD

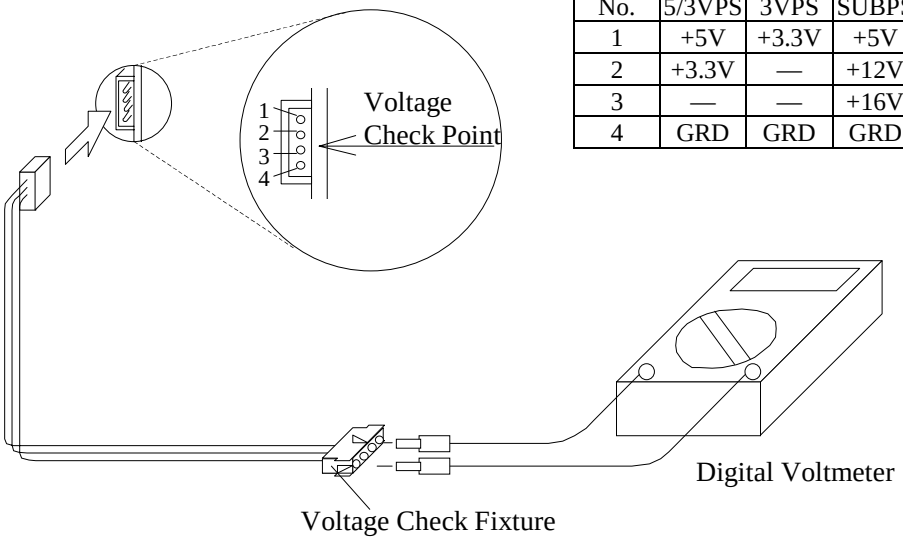


Fig. 2-2 Location of Voltage Check Point

3. Cleaning of Air Filter

3.1 DKC

Clean the air filters located at the bottom of the Front and Rear Logic Boxes and inside the front and rear doors.
The location of the air filters are shown in Fig. 3.1-1.

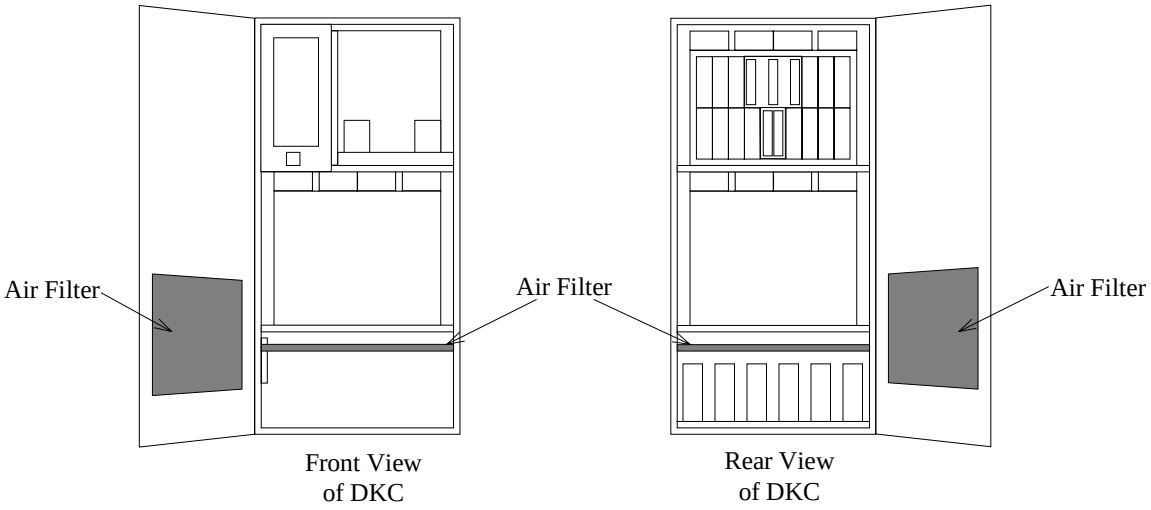


Fig. 3.1-1 Air Filter Location in DKC

3.2 DKU

Clean the air filters located inside the front and rear doors.
The location of the air filters are shown in Fig. 3.2-1.

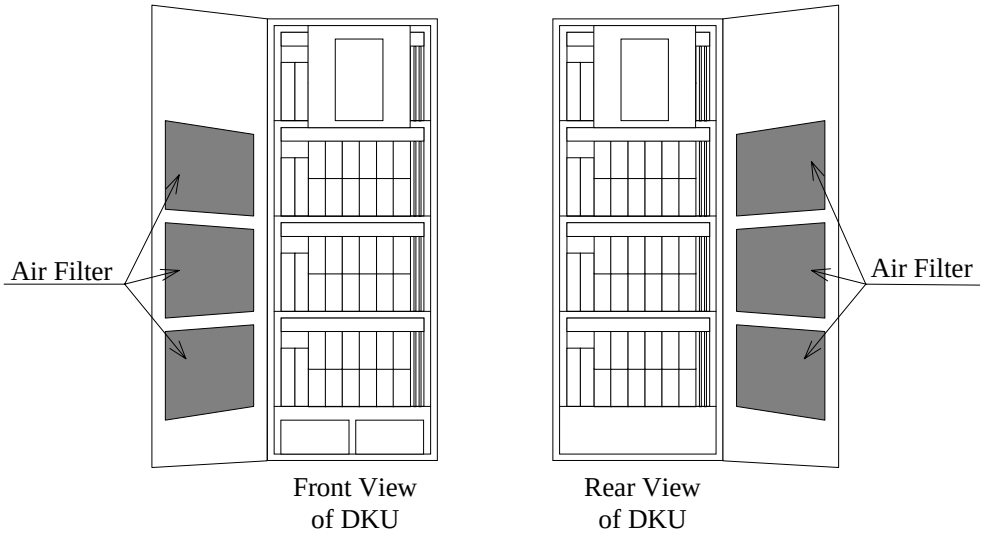


Fig. 3.2-1 Air Filter Location in DKU

4. Check and Replacement of Battery

4.1 Type of battery

The DKC has the batteries shown in Table 4.1-1 and Fig. 4.1-1.

Table 4.1-1 Batteries used in DKC

No.	Battery Name	Logic Part	ALARM LED on Operator Panel	Warning Detecting Voltage
1	BATTERY-10	Cluster 1 Shared Memory	SUB-SYSTEM ALARM	Less than 11.6V
2	BATTERY-11	Cluster 1 Cache Memory		
3	BATTERY-12	Cluster 1 Cache Memory		
4	BATTERY-20	Cluster 2 Shared Memory		
5	BATTERY-21	Cluster 2 Cache Memory		
6	BATTERY-22	Cluster 2 Cache Memory		

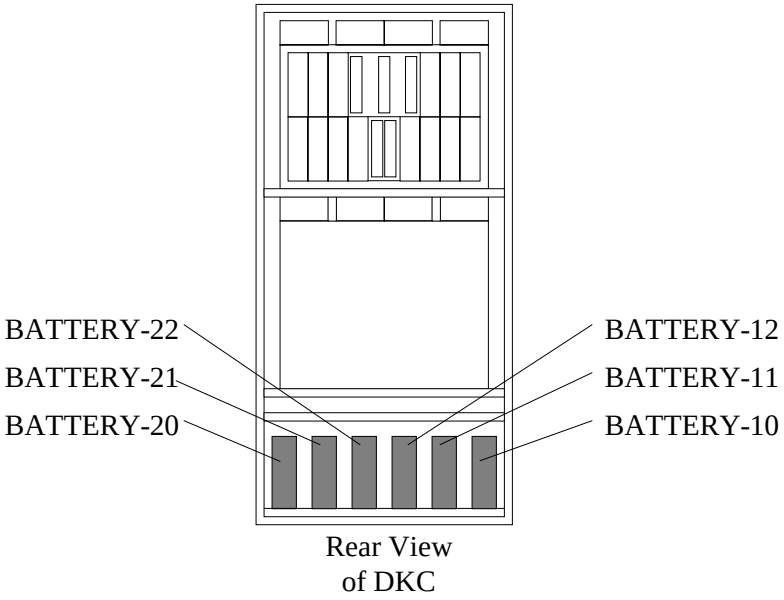


Fig. 4.1-1 Battery Location

4.2 Inspecting Battery

(1) Periodic inspection of the battery
Inspect the batteries installed in the subsystem on the following matters once a year.
① Check if no SIM concerning the battery has been issued.
② Check if no trouble such as liquid leakage is observed in the external appearance.
③ Check if the working days of the battery is within the service life of the battery shown in the table below referring to the maintenance history and production date shown in the label affixed on the battery.

Table 4.2-1 Battery Specifications

No.	Battery type	Service life
1	For SM	3 years
2	For CM	

(2) Replacing the battery
The battery must be replaced before the service life above expires. For the replacement procedure, refer to the Replacement Section (Work ID RT14 on page REP01-170).
When the replacement is completed, set the warning SIM concerning the battery that demands the next periodic replacement following the directions given on page SVP02-1810 in the SVP Section.

(3) Inspection of battery being stored (Batteries installed in the stored DKC are included.)
Allowable storage period and specifications for refilling charge of batteries stored as maintenance parts are shown in the following table.

Table 4.2-2 Specifications for Batteries Stored for Maintenance

No.	Battery type	Allowable storage period	Allowable times of refilling charges	Time when refilling charge is to be done	Method of refilling charge
1	For SM	Six months (when stored at 25°C or lower)	Once[*1]	Until the time shown on the left elapses after the production date written on the label affixed to the battery	Mount the battery in the DKC and apply power to it for longer than 48 hours.
2	For CM	Four months (when stored at 25°C to 30°C)			

*1: When the refilling charge is done, update the production date of the battery written on the label to the date when the refilling charge is done.

Dispose of the battery that has been stored longer than the storable period after the refilling charge.

(4) When re-installing the DKC, replace all the batteries.

⚠ CAUTION
The Battery (Battery Box) is an industrial waste. Dispose of it following the directions given by the manufacturer.