Hitachi Proprietary DKC710I Rev.0 / Sep.2010

SAFETY00-00

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SAFETY SECTION

Rev.1 / Sep.2010, Oct.2012

SAFETY00-10

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A SAFETY SUMMARY

The hazard warnings which appear on the warning labels on the machine or in the manual have one of the following alert headings consisting of a safety alert symbol and a signal word, DANGER, WARNING, or CAUTION.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death. Indicates a hazardous situation which, if not avoided, will result in death or A DANGER: serious injury. Indicates a hazardous situation which, if not avoided, could result in death A WARNING: or serious injury. Indicates a hazardous situation which, if not avoided, could result in minor A CAUTION: or moderate injury. CAUTION: Indicates a hazardous situation which, if not avoided, could result in property damage.

The signal word 'NOTICE' is used to present warnings which are not directly related to personal injury hazards.

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A SAFETY SUMMARY

1. General Safety Precautions

Read the following safety guidelines carefully and follow them when you conduct maintenance of the machine.

1.1 Before starting maintenance

- Maintenance of machine must be done only by trained and qualified field engineers.
- Read and follow the safety guidelines and procedures in this manual and the related manuals.
- In this manual and on the machine, hazard warnings are provided to aid you in preventing or reducing the risk of death, personal injury, or product damage. Understand and follow these hazard warnings fully.
- Then warning labels become dirty or start peeling off, replace them.
- If any physical accident such as abnormal noise, smell, smoke or falling down occurs on the Disk Subsystem while running, immediately power off.
- Keep in mind that the hazard warnings in this manual or on the machine cannot cover every possible case, as it is impossible to predict and evaluate all circumstances beforehand. Be alert and use your common sense.
- About the handling of the battery for timers built in SVP and the battery installed in FMD.

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.



SAFETY SUMMARY (Continued)

1.2 General Precaution during work

Don't use the materials which is outside specification

• Use the spare parts, consumable and materials for maintenance which are specified in the manual; otherwise, personal injury or damage of the machine, as well as deterioration of the product's quality, may result.

Keep the maintenance area neat and tidy

Always put away parts, materials or tools when not in use.

Handling of heavy weight parts

- When lifting anything heavy, hold it close to yourself and keep your back erect, to prevent injury to your back or spine.
- When lifting anything, for the weight of which CAUTION is indicated, use a proper lifting tool or have somebody help you.

Prevention of electric shock

- Before starting work, make sure that, unless otherwise specifically instructed, there is no potential electric hazard in the maintenance area such as insufficient grounding or a wet floor.
- Unless otherwise specifically instructed, cut off all power sources to the machine before starting maintenance. Just switching off the machine power supplies is usually not enough.
- Do not perform telephone line construction in thunderstorm.

Preventing being caught by rotating or moving parts

- Do not supply power to any device with rotating or moving parts which are not properly cover.
- Tuck in your tie, scarf, shirt, or any other loose clothing so that it will not be caught by a rotating or moving part.

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SAFETY SUMMARY (Continued)

Cautionary notes on works for a machine with the power turned on

The works concerned are those to be done for the subsystem while the subsystem power is turned on.

- When you do the work, fully take care not to touch live electric parts so that you should not get an electric shock.
- Take enough care not to touch heat sinks immediately after a PCB is pulled out because they are very hot.
- While doing the work, take care not to drop a tool, a screw, or the like that can cause a short circuit.
- While doing the work, take care not to damage a wire or have it pinched.
- When moving anything heavy, be sure to do the moving by two persons after making sure that there is no obstacle around you, and take enough care not to cause an electric shock or short circuit by touching / dropping it to / on a live electric circuit.
- Be careful of a head injury or the like when operating with the tray for CE Laptop PC installed on the rear side of the DKC.

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SAFETY SUMMARY (Continued)

1.3 Procedures in an emergency

1.3.1 For electric shock

- Do not panic. Do not become another victim through contact with the injured person.
- First, shut off the electric current passing through the victim. Use the power-off switch if there is one, or otherwise a normal power-off switch. If this cannot be done, push the victim away from the source of the electric current by using a nonconductive object such as a dry wooden stick.
- Then, call an ambulance.
- If the victim is unconscious, artificial respiration may be necessary. A proper method for performing artificial respiration or resuscitation should be learned beforehand.
- If the victim's heart is not beating, cardio-pulmonary resuscitation should be performed by a trained and qualified person.

1.3.2 For outbreak of fire

- First, shut off all the power from the machine using the power-off switch if there is one, or the normal power-off switch.
- If the fire continues burning after the power is shut off, take suitable actions including the use of a fire extinguisher or a call for the fire department.

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▲ SAFETY SUMMARY (Continued)

2. Hazard Warning Statements

The following are the hazard warning statements contained in this manual.

2.1 DANGER Statements

None

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▲ SAFETY SUMMARY (Continued)

2.2 WARNING Statements

If the Subsystem falls when the elevator of the lifter is at a high position, a personal injury will be caused.

Perform the positioning, fastening, or other handlings very carefully. (INST03-15-30)

Hazardous voltage:

Contact could cause electric shock or burn. Turn off all related breakers and discharge residual voltage, as shown below. (Follow next procedures.)

(REP03-34-30, REP03-34-100)

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SAFETY SUMMARY (Continued)

2.3 **A**CAUTION Statements

Make sure that the equipment is moved by more than one person.

Be sure to move the equipment by pushing it from the front face in the direction of movement. It is acceptable for two persons to move the equipment carefully from the front face and rear face only when installing it. Do not push the equipment from the side face in principle.

The front caster of the rack frame is not a rotary type but a fixed type not to incline the equipment at over the tipping angle. Therefore, the equipment should not be rotated quickly.

(INST03-03-10)

Caution of Over-Turning:

Work carefully for the height adjustment. A lack of balance that only one part rises too much causes the over-turning. The height of the screw jacks shall be adjusted in 1/4 rotations evenly into the four places in order.

(INST03-03-30, INST04-08-60)

Caution of Breakage:

To prevent a breakage of the screw part of the screw jack, apply oil to the screw part in advance of the operation.

(INST03-03-30, INST04-08-60)

Paying attention to falls:

Dropping a side cover may cause injury.

When installing or removing the side cover, hold the cover firmly with both hands and be careful not to drop it on your feet. Make sure the side cover is hung on the hook of the rack frame side when it is installed.

(INST03-03-60, INST04-08-80)

Caution of Movement and Over-Turning:

Make sure no obstacle and hole exist on the floor, and a movement of equipment must be operated by two operators or more. Confirm the stability of the equipment carefully, and exercise extreme caution for over-turning of the equipment when operating.

(INST04-08-60)

Paying attention to falls:

Work carefully because the mass of the single DKC is about 180 kg. (INST03-04-90, INST04-07-120)

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SAFETY SUMMARY (Continued)

Paying attention to falls:

Work carefully because the mass of the single DKU is about 40 kg. (INST03-05-100, INST03-05-310, INST04-02-120, INST04-02-210)

Paying attention to falls:

Work carefully because the mass of the single DKU is about 20 kg. (INST03-05-570, INST04-02-360)

Beware over turning and dropping:

To prevent DKU from over turning and dropping, the installation work must be done by two or more personnel.

(INST03-05-100, INST03-05-310, INST03-05-570, INST04-02-120, INST04-02-210, INST04-02-360)

Rack mounting and lifter operation should only be conducted by a person who has been trained and qualified since the subsystem could turn over or a worker could be caught under the subsystem. (INST03-15-10)



SAFETY SUMMARY (Continued)

- Rack mounting and lifter operation should only be conducted by a person who has been trained and qualified since the subsystem could turn over or a worker could be caught under the subsystem.
- Be sure to perform the operation with two or more workers.
- Work carefully because the mass of the single DKC is about 180 kg and DKU is about 40 kg. (INST03-15-20)
- Rack mounting and lifter operation should only be conducted by a person who has been trained and qualified since the subsystem could turn over or a worker could be caught under the subsystem.
- Operate the valve slowly when opening it. If it is opened quickly, the elevator of the lifter descends rapidly and may cause personal injury.
- Be sure to perform the operation with two or more workers.
- Work carefully because the mass of the single DKC is about 180 kg and DKU is about 40 kg.
- Please be cautious of your safety and use a stepladder as you need while assembling or removing parts on top of the RACK frame.

(INST03-15-30)

Hazardous rotating mechanism:

Can cause injury if touched. Stay clear of it when machine is running. (REP03-18-60, REP03-19-60, REP03-32-70, REP03-33-70)

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. (REP03-22-50)

Watching for short-circuits: A Short-circuit may cause a fire. Never insert metal or the like into the cable connector or a short-circuit may occur.

(REP03-23-70, REP03-30-80, REP03-31-80, REP03-38-90)

The device may be powered off when turning off the breakers not shown below. (REP03-34-30)

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▲ SAFETY SUMMARY (Continued)

2.4 Warning Labels Pasted on the Equipment

In this equipment, warning labels at pasted on portions requiring special care. The following are the symbols contained in warning labels.

Table 2.4-1 Description of Symbol mark

Symbol mark	Description
®	Do not disassemble the equipment.
A	Take full care to handle the heavy equipment.
	Handling prohibition cautions in the status with static electricity
	Be careful of your fingers to be caught



▲ SAFETY SUMMARY (Continued)

3. Attachment Position of Safety Labels

The attachment position of the safety labels is shown below.

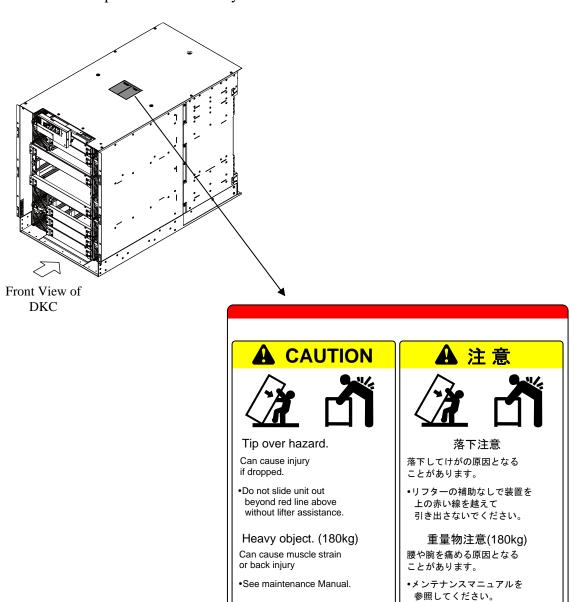


Fig. 3-1 Attachment Position of Safety Labels

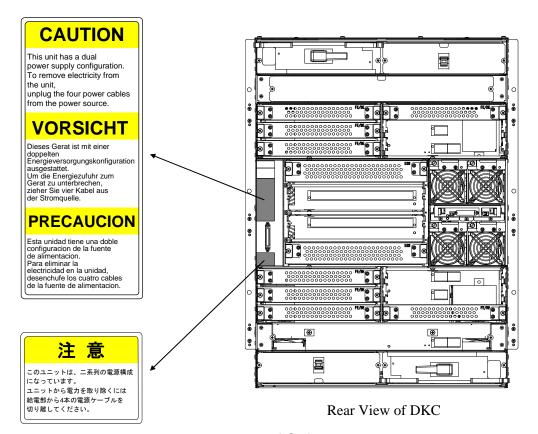


Fig. 3-2 Attachment Position of Safety Labels

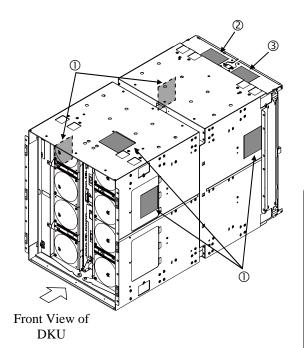
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▲ SAFETY SUMMARY (Continued)



1 **CAUTION** 注意 Tip over hazard. 落下注意

Can cause injury if dropped.

Do not slide unit out beyond red line above without lifter assistance.

Heavy object. (80kg)

Can cause muscle strain or back injury

•See maintenance Manual.

落下してけがの原因となる ことがあります。

•リフターの補助なしで装置を 上の赤い線を越えて 引き出さないでください。

重量物注意(80kg)

腰や腕を痛める原因となる ことがあります。

•メンテナンスマニュアルを 参照してください。

2 ▲ 注意 落下注意 落下してけがの原因となることがあります。 •リフターの補助なしで装置を上の赤い線を越えて 引き出さないでください。 重量物注意(80kg) 腰や腕を痛める原因となることがあります。 •メンテナンスマニュアルを参照してください。



Fig. 3-3 Attachment Position of Safety Labels

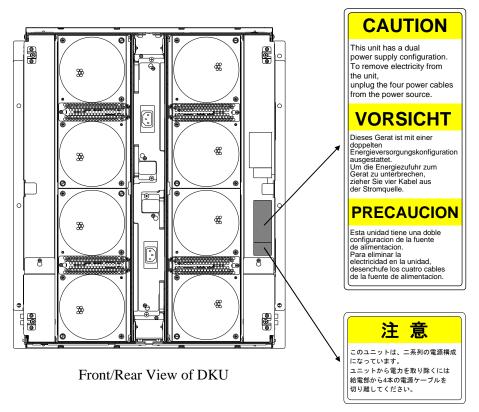
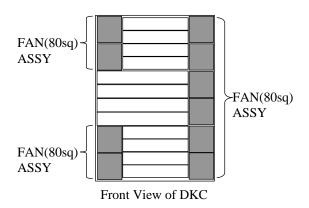


Fig. 3-4 Attachment Position of Safety Labels



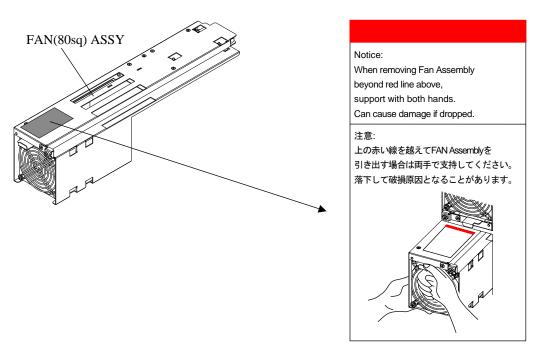
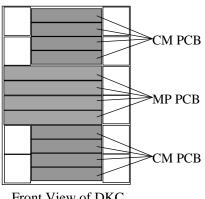


Fig. 3-5 Attachment Position of Safety Labels





Front View of DKC

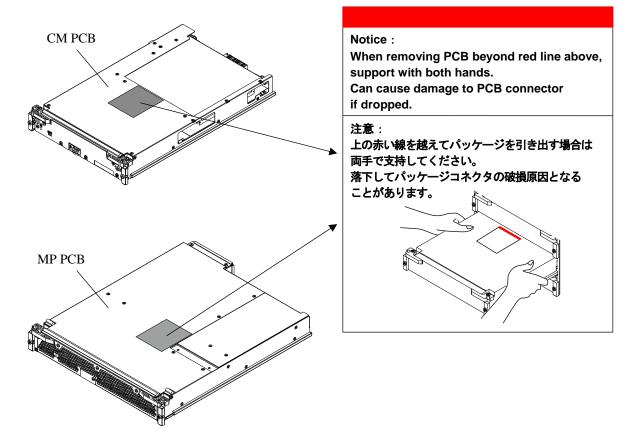


Fig. 3-6 Attachment Position of Safety Labels

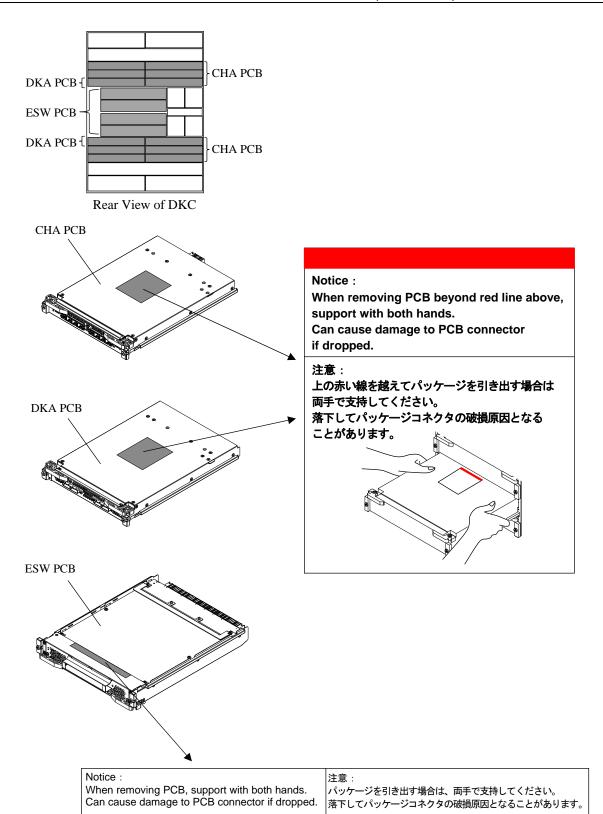


Fig. 3-7 Attachment Position of Safety Labels

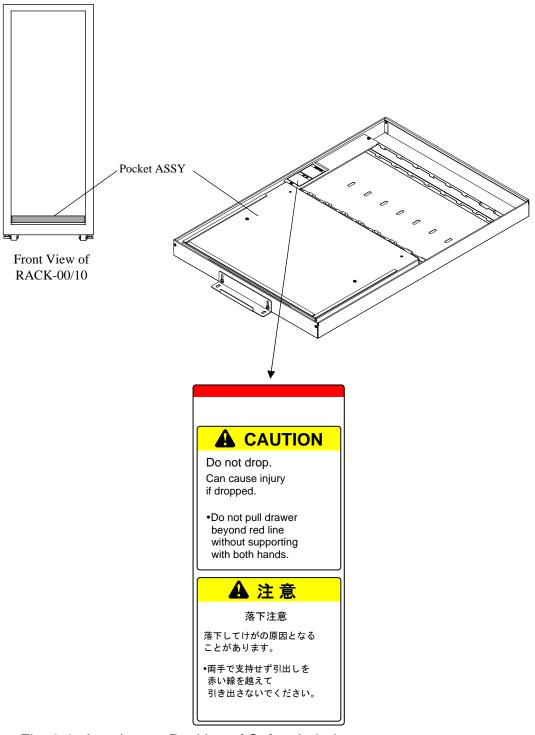


Fig. 3-8 Attachment Position of Safety Labels

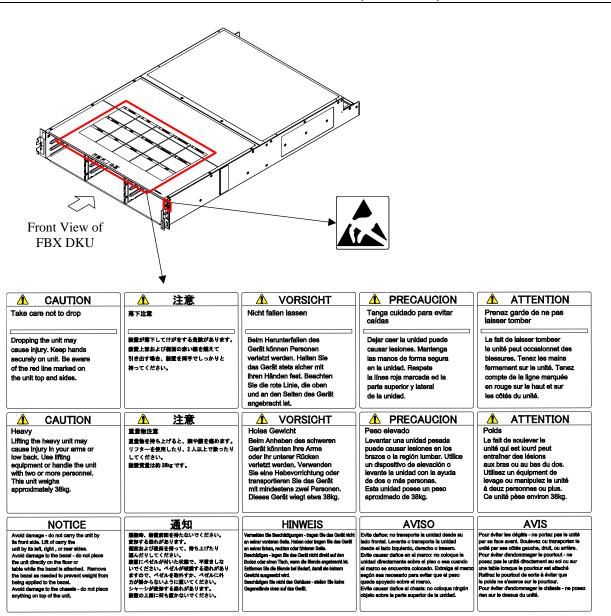




Fig. 3-9 Attachment Position of Safety Labels

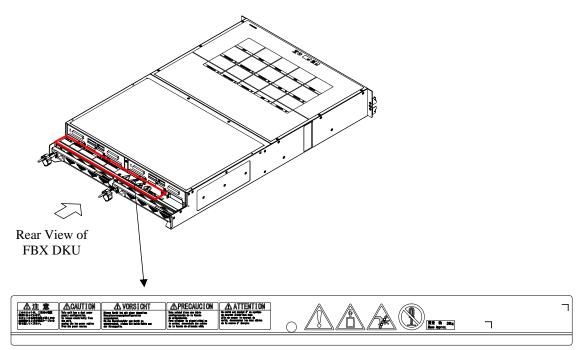


Fig. 3-10 Attachment Position of Safety Labels

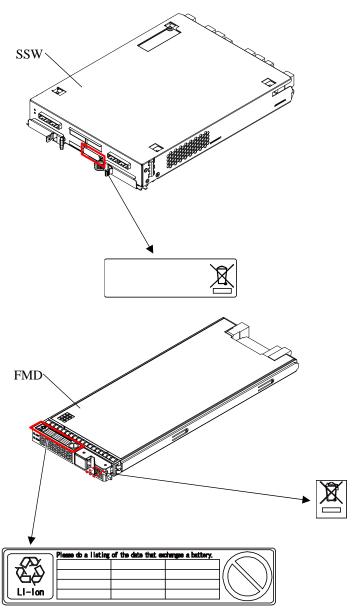


Fig. 3-11 Attachment Position of Safety Labels