# Safety Summary

This "Safety Summary" volume describes the cautionary notes to handle the maintenance work safely.

# **Contents**

#### **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, CAUTION or NOTICE.

#### 1. About the Symbols



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.

PANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING:** Indicates a hazardous situation which, if not avoided, could result in death or serious

injury.

CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate

njury.

**NOTICE**: Indicates a hazardous situation which, if not avoided, could result in damage not related

to personal injury.

#### 2. General Safety Guidelines

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

#### Before starting maintenance

- Maintenance of the machine must be done only by trained and qualified engineers.
- Read and follow the safety guidelines and procedures in this manual.
- 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.
- When warning labels become dirty or start peeling off, replace them.
- 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.
- Although this array has the built-in laser diode, it meets the laser system standard of class 1.
   It does not emit the laser beam, which is harmful to a human body, outside the array in the usual operation.

Operate the array according to this manual. Otherwise, it may cause unexpected accidents or failures.

#### During work

- For each procedure, follow the given method and sequence of steps.
- Use the spare, consumables, 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.
- Use the special tools and instruments specified for the work in the manual or commercially available tools and instruments which fit the purpose.
- Use measurement instruments and powered tools which are properly calibrated or periodically inspected.
- Keep the maintenance area neat and tidy.
- Always put away parts, materials, or tool when not in use.
- Wear an eye protector where liquid may splash or anything may fly about.
- When lifting anything heavy, lift it using your legs with your back kept 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.
- Keep a soldering iron and its stand away from you to prevent accidental contact and burns.
- When using sharp objects or cutting tools, make sure that no part of your body lies in the path of the blade, or point.
- Before finishing your work, check if the array is returned to its original state.
   (Make sure that all parts removed during maintenance have been installed back in their original positions in the machine. Make sure that no tool or foreign material left in the machine.)

#### Prevention of electric shocks

- 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.
- Before starting work, note where the emergency power-off switches are located and make sure you know how to operate them.
- 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. When power is fed from a wall or floor outlet, unplug the power supply cord, or turn off the switch on the power distribution panel or board.
  - When the power supply has a lockout device<sup>(\*1)</sup>, lock it up after the powering off and keep the key.

Attach a notice on the panel or board prohibiting the use of the switch.

If the machine power has been already turned off, make sure yourself that these conditions are satisfied.

- <sup>\*1</sup> The following is a portion of 29 CFR 1910.147 "The control of hazardous energy (lockout/tagout)," in the OSHA (Occupational Safety & Health Administration U.S Department of Labor USA) Regulations.
- Lockout device. A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.
- Energy isolating device. A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
- Do not touch any uninsured conductor or surface, where so instructed, which remains charged for a limited time after the external power supply to the machine is disconnected.
- When working on a machine which has a grounding terminal, make sure that the terminal is properly connected to the facility's ground.
- When working close to a hazardously energized part, do not work alone; work with another person who can immediately turn off the power in an emergency.

- Do not wear any metallic item such as a wrist watch with a metallic surface, or metallic accessories.
  - If you wear eyeglasses with a metallic frame, take care not to let the frame touch an uninsured surface.
- Make sure that your hands and arms are dry.
- Unless otherwise specifically instructed, use only one hand when it is necessary to work near an exposed live electric circuit.
  - This prevents the completion of the circuit through both hands even if you accidentally touch the circuit.
- Do not use a dental mirror near an exposed live electric circuit.

  The mirror surface is conductive and can become hazardous even if it is made of plastic.
- Unless otherwise specifically instructed, do not supply power to any subassembly such as a power supply unit or a motor while it is removed from the machine.

#### Preventing being caught by rotating or moving parts

- Tuck in your tie, scarf, shirt, or any other loose clothing so that it will not be caught by a rotating or moving part.
- Tie up long hair.
- Unless otherwise specifically instructed, do not supply power to any device with rotating or moving parts which are not properly covered.
- When instructed to supply power to any device with rotating or moving parts whose covers
  have been removed, work with another person who can immediately turn off the power in
  an emergency.

#### Procedure in an emergency

#### 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 emergency 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 nonconductor 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, cardiac resuscitation should be performed by a trained and qualified person.

#### For outbreak of fire

- First shut off all the power from the machine using the emergency 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.

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

- 3.1 **DANGER** Statements
  - Do not disassemble the case, do not modify it, or do not peel off the label. There are high voltage parts inside: If you attempt any of these actions, you may get an electrical shock or burn.

(REP 05-0000)

• Do not disassemble the battery; this may cause short circuits inside or outside of the battery. If the components are exposed to the air, the battery may cause overheat, burst or ignite. Disassembling the battery may expose you to its alkaline solution, which can be dangerous.

(REP 05-0000)

• Do not cut the output cable. Do not modify the connector. If you attempt any of these actions, you may get an electrical shock or burn. A short-circuit may cause abnormal chemical reactions inside the battery which leads to overheating, bursting or ignition.

(REP 05-0000)

• Follow the instructions when you recharge the battery pack. If you recharge it in a way different from specified here, it may cause the following problems: The battery may become charged excessively; excessive current may be produced; or the battery cannot be recharged. As a result, the battery may leak, become overheated, burst, or ignite.

(REP 05-0000)

Do not use excessive force when you connect the battery pack to the charger or other
devices. If you cannot connect it easily, check the positive and negative are correct for the
connector. If you connect the battery in reverse, it will be charged incorrectly and
abnormal chemical reactions may occur inside. As a result, the battery may become
overheated, burst or ignite.

(REP 05-0000)

• Do not connect the battery to a power receptacle. If you apply an excessive amount of voltage to the battery, it may produce excessive current making the battery overheat, burst or ignite.

(REP 05-0000)

• Do not use or leave the battery where the temperature can become high, such as, near a fire or a heating element. High temperatures may damage the battery's separator, which may cause short circuit, making it overheat, burst or ignite.

(REP 05-0000)

• Do not incinerate the battery pack or heat it. If you do so, the insulator may melt, the safety fuse/mechanism may be damaged, or the electrolyte may gush out. As a result, the battery may become burst, explode or ignite.

(REP 05-0000)

• Do not connect the negative terminal to the positive with metal wire. Do not carry or store the battery with other metal parts. This may cause a short circuit or produce excessive current which can cause the battery to leak, overheat, burst or ignite.

(REP 05-0010)

Do not let the battery become wet by soaking it in the water or seawater. If the battery
gets wet, a short circuit may occur and an excessive amount of current may be produced
causing abnormal chemical reactions inside. As a result, the battery may become
overheated, burst or ignite.

(REP 05-0010)

 Do not nail the battery, hit it with a hammer, or stamp on it. The battery may be broken or dented and a short circuit may occur inside. As a result, the battery may become overheated, burst or ignite.

(REP 05-0010)

• Do not solder directly to the battery. If you do so, heat will melt the insulator and damage the safety fuse/mechanism. As a result, the battery may leak or may become overheated, burst or ignite.

(REP 05-0010)

• Do not recharge the battery where there is a high temperature, such as near a fire. This may cause abnormal chemical reactions inside the battery and it may become overheated, burst or ignite. High temperatures may also cause deterioration of performance/life of the battery.

(REP 05-0010)

### 3.2 **WARNING** Statements

 If the array 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.

(INST 02-0560)

(UP 05-0360, UP 05-0600, UP 05-0670)

• Do not place the battery pack in the microwave oven or under high pressure. Either of these actions will rapidly heat the battery or break its seals: As a result, the battery may become overheated, burst or ignite.

(REP 05-0010)

• If you find anything strange or unusual with the battery when you use/carry/store it, remove the battery from the device and stop using it. For example, strange smells, strange colors, or deformation are a sign you must stop using the battery.

(REP 05-0010)

• If it takes longer than the specified time to complete recharging, stop recharging the battery: Otherwise, the battery may become overheated, burst or ignite.

(REP 05-0010)

• If the battery leaks and gets into your eyes, immediately flush your eyes with clean water (tap water) and do not rub your eye. Then visit the doctor immediately. If you do not seek any treatment for your eyes, problems may occur later. Because the battery uses highly concentrated alkaline as electrolyte, it may burn or you may lose your sight if it contacts your skin or eyes. If the battery's liquid contacts your skin or eyes, you must flush them with plenty of clean water and visit the doctor at once.

(REP 05-0010)

### 3.3 **CAUTION** Statements

• Attach or remove the Front Bezel carefully following the procedure. Otherwise, you may hurt your fingers by pinching them.

(INST 01-0140)

(REP 02-1980, REP 03-0020)

• Be careful of the workers on the other side when pulling out or storing the DBX.

(INST 01-0190)

Do not pull out multiple DBXs at a time because the rack can fall over.

(INST 01-0190)

(ADD 04-0040)

(REP 02-1600, REP 02-1740)

• Do not put objects on the DBX which has been pulled out of the rack or use it as working space because the rack can fall over.

(INST 01-0190)

(ADD 04-0040)

(REP 02-1600, REP 02-1740)

• Do not put objects in the open drawer of the DBW or use it as working space because the rack can fall over.

(INST 01-0201)

(ADD 01-0140, ADD 02-0200)

(REP 02-0050, REP 02-1900)

 Open or close the door carefully following the procedure. Otherwise, you may hurt your fingers by pinching them.

(INST 01-0210)

- The unpacking should be done by two or more workers to prevent turning over of the array or being caught under the array. For the DBW, it should be done by three or more workers (INST 02-0390)
- Work carefully because the mass of the CBXSL/CBSL is about 43 kg, CBXSS/CBSS is about 40 kg, CBL is about 47 kg, DBL is about 27 kg, DBF is about 38 kg, DBS is about 23 kg, DBX is about 85 kg, and DBW is about 128 kg.

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(INST 02-0390, INST 02-0550, INST 02-0560)
```

 Rack mounting and lifter operation should only be conducted by a person who has been trained and qualified since the array could turn over or a worker could be caught under the array.

```
(INST 02-0550, INST 02-0560)
(UP 05-0340, UP 05-0590, UP 05-0600, UP 05-0670)
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• Be sure to perform the operation with two or more workers.

```
(INST 02-0550, INST 02-0560)
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(UP 05-0340, UP 05-0590, UP 05-0600, UP 05-0670)

(REP 02-1840, REP 02-1900)

 Be sure to lift the DBW with no components installed (about 46 kg) with three or more workers.

```
(INST 02-0550, INST 02-0560)
(REP 02-1900)
```

• Operate the valve slowly when opening it. If it is opened quickly, the elevator of the lifter descends rapidly and may cause personal injury.

(INST 02-0560)

(UP 05-0360, UP 05-0600, UP 05-0670)

• Be sure to install it in order from the bottom to prevent the falling of the rack when you install the array on the rack.

(INST 02-0560)

 Do not move the lifter away from the rack frame nor lower the elevator until the red line on the label affixed on the array enters the rack frame across the end of it. Otherwise, falling of the array may be caused.

```
(INST 02-0570)
(UP 05-0370, UP 05-0460, UP 05-0690)
```

 Make sure that there is no scratch or flaw on a power cable. It can cause an electric shock or even a fire.

```
(INST 02-1270, INST 02-1311, INST 02-1320)
(ADD 01-0680, ADD 03-0050)
(UP 05-0260, UP 05-0550, UP 05-0610)
```

• When inserting the power cable in the connector of PDB, have it inserted completely, and then fix it with a cable clamp, etc. If it is loosened, the connection is damaged, and it causes an electric shock or fire.

```
(INST 02-1270, INST 02-1320)
```

• DC input to this array is required reinforced insulation between a primary and a secondary power source. Use the ones that are reinforced insulation to the DC power supply.

```
(INST 02-1311)
(REP 02-0683, REP 02-0687)
```

• This array needs to be directly connected to the grounding electrode bar of the DC power system or directly connected to the grounding terminal bar connecting to the grounding electrode of the DC power system or jumper wiring from the grounding bus.

```
(INST 02-1311)
(REP 02-0683, REP 02-0687)
```

This array needs to be installed in the same adjacent part (e.g. adjacent cabinet) of the
other device connecting to the grounding power supply and grounding wiring of the same DP
power circuit. Furthermore, it needs to be grounded to the grounding point of the DC power
system. The DC power system does not have to be grounded other than this part

```
(INST 02-1311)
(REP 02-0683, REP 02-0687)
```

• The DC power supply needs to be set up in the same building as this array.

```
(INST 02-1311)
(REP 02-0683, REP 02-0687)
```

• Do not set the switching or shutoff devices for the grounded circuit wire which connects the DC power supply and the grounding point of the grounding electrode bar.

```
(INST 02-1311)
(REP 02-0683, REP 02-0687)
```

• Do not pull out multiple DBXs/DBWs at a time because the rack can fall over.

(ADD 01-0140, ADD 02-0200) (REP 02-0050, REP 02-1900)

• Do not put objects on the DBX which has been pulled out of the rack or use it as working space because the rack can fall over.

(ADD 01-0140, ADD 02-0200) (REP 02-0050, REP 02-1900)

• The unpacking should be done by two or more workers to prevent turning over of the array or being caught under the array.

(UP 05-0030)

• Work carefully because the mass of the single CBSL is about 43 kg, CBSS is about 40 kg, CBL is about 47 kg, DBL is about 27 kg, DBS is about 23 kg, and DBX is about 85 kg.

(UP 05-0030)

 Work carefully because the mass of the single DBL is about 27 kg, DBS is about 23 kg, and DBX is about 85 kg.

(UP 05-0360)

- Work carefully because the mass of the single CBSL is about 43 kg, and CBSS is about 40 kg. (UP 05-0600, UP 05-0670)
- A closed type nickel-hydrogen battery can cause an electric shock or explosion if it is handled wrongly. Observe the following requirements for handling.
  - Do not disassemble or remake the battery.
  - · Do not deform the battery.
  - Do not connect plus and minus poles with a metallic article such as a wire.
  - Do not reverse the connections of plus and minus poles.
  - Do not peel off the covering tube.
  - Do not connect the battery directly to the outlet.
  - Do not connect the battery to anything other than this array for charging/discharging.
  - Do not leave the battery in a hot place. Store it in a dark and cool place.
  - Do not discard a used battery at the site where it was removed for replacement.

(REP 02-0440, REP 02-0490)

Since each fan is rotating with high-speed, be careful not to be caught by it.

(REP 02-0520, REP 02-0551, REP 03-0010)

• Be sure to keep the Front Bezel and rear panel clean. Or else, the ventilation is deteriorated so that the temperature inside the array may rise causing a failure or even a fire.

(REP 03-0020)

Be careful not to move the array during cleaning.

(REP 03-0020)

• Do not disassemble the battery, or a burn or electric shock may be caused.

(REP 03-0040)

• If a battery is handled wrongly, it is feared that an explosion is caused.

(REP 03-0040)

### 3.4 CAUTION Statements

• Touching heat sinks or ICs may cause getting burned. Be sure to handle with care.

```
(ADD 01-0460, ADD 01-0470, ADD 01-0500, ADD 01-0520, ADD 01-0550, ADD 01-0570, ADD 01-0600, ADD 01-0630, ADD 01-0640, ADD 01-0642, ADD 02-0320, ADD 02-0340, ADD 02-0370, ADD 02-0390, ADD 02-0420, ADD 02-0434, ADD 02-0440, ADD 02-0460, ADD 02-0490, ADD 02-0504, ADD 02-0510, ADD 02-0512, ADD 05-0030, ADD 05-0080, ADD 05-0160, ADD 05-0190)

(UP 05-0000)

(REP 02-0700, REP 02-0730, REP 02-0820, REP 02-0880, REP 02-0920, REP 02-0940, REP 02-0950, REP 02-1020, REP 02-1060, REP 02-1070)
```

3.5 **CAUTION** Statements

• Hazard exists that can cause an electric shock. Start the work after making sure that the breaker in the power distribution box has been turned off.

(INST 02-1311) (UP 05-0220)

- When doing a hot replacement of a part, do not wear metallic accessories or a watch so as
  to avoid an electric shock. Be careful not to touch any of live parts with a screwdriver, etc.
   (REP 01-0010)
- Here exists a hazard that can cause an electric shock. Start the work after making sure that
  the breaker in the power distribution box connected to the Power Unit to be replaced has
  been turned off.

(REP 02-0681)

When replacing the Power Unit and the power cables together, make sure to request the
customer to block out the input power before removing the terminal screws from the
distribution board which provides power. And check that no voltage is applied to the
terminals, then replace them.

(REP 02-0681)

• If you touch a live part, it is feared that you receive an electric shock.

(REP 03-0020)

3.6 **NOTICE** 

Statements

 To prevent part failures caused by static electrical charge built up on your own body, be sure to wear a wrist strap connected to the chassis before starting and do not take it off until you finish.

```
(INST 01-0010, INST 01-0140, INST 02-0410, INST 02-0640)
(ADD 01-0140, ADD 01-0460, ADD 01-0500, ADD 01-0570, ADD 01-0640, ADD 02-0200, ADD 02-0320, ADD 02-0370, ADD 02-0440, ADD 02-0510, ADD 03-0000, ADD 04-0040, ADD 05-0030)
(UP 05-0000, UP 05-0220, UP 05-0300, UP 05-0490, UP 05-0560, UP 05-0710, UP 08-0010)
(REP 01-0010, REP 02-0080, REP 02-0280, REP 02-0700, REP 02-0920, REP 02-1100, REP 02-1230, REP 02-1320, REP 02-1410, REP 02-1491, REP 02-1500, REP 02-1581, REP 02-1600, REP 02-1680, REP 02-1731, REP 02-1740, REP 02-1840, REP 02-1900, REP 02-1980, REP 02-2030)
```

• Be sure to wear a wrist strap connected to the chassis whenever you unpack parts from a case. Otherwise, the static electrical charge on your body may damage the parts.

```
(INST 01-0010, INST 02-0410, INST 02-0640)
(ADD 01-0140, ADD 01-0460, ADD 01-0500, ADD 01-0570, ADD 01-0640, ADD 02-0200, ADD 02-0320, ADD 02-0370, ADD 02-0440, ADD 02-0510, ADD 03-0000, ADD 04-0040, ADD 05-0030)

(UP 05-0000, UP 05-0220, UP 05-0300, UP 05-0710, UP 08-0010)

(REP 01-0010, REP 02-0080, REP 02-0280, REP 02-0700, REP 02-0920, REP 02-1100, REP 02-1230, REP 02-1320, REP 02-1410, REP 02-1491, REP 02-1500, REP 02-1581, REP 02-1600, REP 02-2030)
```

• When you install Drive, Controller, Drive I/O Module, and I/O Module(ENC) or I/O Card(ENC) support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(INST 01-0010)

• The Front Bezels of the CBXSL/CBXSS/CBSL/CBSS/DBL/DBS/DBF, the CBL, and the DBX are different in size.

(INST 01-0140)

• When installing or removing the Front Bezel, try not to operate the main switch incorrectly with the hook or the ON/OFF button of the Front Bezel.

(INST 01-0140)

(REP 02-1980)

 When you install a Drive, Controller and I/O Module(ENC), support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

> (INST 02-0410, INST 02-0640) (ADD 03-0000)

• Take full care to connect cables correctly.

(INST 02-0850, UP 05-0750)

 Do not allow a mix of AC Power Supply Model and DC Power Supply Model to be used in the same disk array system. Otherwise, the incorrect Power Unit information will be notified when a power failure occurs.

Also, a mix of AC Power Unit and DC Power Unit cannot be installed in the same array.

(INST 02-1311)

Drives are precision components.
 Be careful not to expose drives to hard shock.

```
(ADD 01-0140, ADD 02-0200, ADD 04-0040)
(UP 05-0300, UP 05-0490, UP 05-0560, UP 05-0710)
(REP 02-0080, REP 02-0280, REP 02-1840, REP 02-1900)
```

• When you install a Drive, support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

```
(ADD 01-0140)
(UP 05-0220, UP 05-0490, UP 05-0710)
(REP 02-0080, REP 02-0280)
```

• When you install a Controller, support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

```
(ADD 01-0460, ADD 01-0500, ADD 01-0570, ADD 01-0640, ADD 02-0320, ADD 02-0370, ADD 02-0440, ADD 02-0510)

(UP 05-0300)

(REP 02-0700, REP 02-0920)
```

The DC Power Supply Model cannot be added to the AC Power Supply Model.

(ADD 01-0690)

• The AC Power Supply Model cannot be added to the DC Power Supply Model.

(ADD 01-0690)

• When you remove a Drive, support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(ADD 02-0200, ADD 04-0040)

• When you install a Host I/O Board/Module, support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(ADD 05-0030)

(REP 02-1100)

• When you install the Controller or a Cache Memory in the Controller, do the installation holding it by its sheet steel part with your hand(s) wearing the ESD grounding wrist strap. The electrostatic charge can be discharged through your touch to the sheet steel part.

(UP 05-0220)

For update installation of the firmware, select [Update].
 If [Initial Setup] is selected, the data is all lost.
 When executing [Initial Setup], contact the Technical Support Center in advance.

(UP 05-0810)

• Do not disassemble or remodel parts for maintenance. Otherwise, a failure or a serious accident may be caused. Be sure to replace parts in units of formally defined maintenance part.

(REP 01-0000)

• When replacing the Power Unit, do it in haste after preparing a replacement Power Unit and arranging cables, etc. so that they do not disturb the replacement.

(REP 01-0000, REP 02-0560, REP 02-0640, REP 02-0680, REP 02-0690)

• When you install Drive, Controller, I/O Module(ENC) and I/O Card(ENC), support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(REP 01-0010)

• For the system Drives (The Drives #0 to #4 of the CBXSL/CBXSS/CBSL/CBSS, or the Drives #0 to #4 of the DBL/DBS/DBW/DBF or the Drive #A0 to #A4 of the DBX corresponding to the unit ID#0 connected to the CBL) regardless of the data drives, the Spare Drives and the Drives which do not configure the RAID group, do not remove the Drives #0 to #4 at the same time with the array power turned on.

If removed, the array may go down.

(REP 02-0080)

• The replacement of the component is restricted in time. This operation requires referring to the manual. If the array is left with this component removed for more than 10 minutes, it will stop by detecting the thermal alarm.

(REP 02-0520, REP 02-0560, REP 02-0640, REP 02-0680)

• The replacement of the component is restricted in time. This operation requires referring to the manual. If the array is left with this component removed for more than 5 minutes, it will stop by detecting the thermal alarm.

(REP 02-0551, REP 02-0690)

 When the ALM LED on the Control Unit is on while the ALM LED of the Fan Module is on, be sure to solve the trouble of the Control Unit first.

(REP 02-0520, REP 02-0551)

• When replacing the Fan Module, do it promptly after preparing a replacement Fan Module and arranging cables, etc. so that they do not disturb the replacement.

(REP 02-0520, REP 02-0551)

• When a trouble of the Power Unit is detected due to a trouble of the Fan Module, the Power Unit does not need to be replaced. When a trouble of the Power Unit is detected during replacement of the Fan Module, pull out and then insert the Power Unit.

(REP 02-0560, REP 02-0640)

• Check the type of the power supply before replacing the Power Unit. Do not install the DC power unit to the AC Power Supply Model.

(REP 02-0560)

 In CBLD, when a trouble of the Power Unit is detected due to a trouble of the Fan Module, the Power Unit does not need to be replaced. When a trouble of the Power Unit is detected during replacement of the Fan Module, pull out and then insert the Power Unit.

(REP 02-0680)

 Check the type of the power supply before replacing the Power Unit. Do not install the AC power unit to the DC Power Supply Model.

(REP 02-0680)

• When you install a Drive I/O Module, support its metal part with your hand that has the wrist strap. By so doing, you can discharge the static electricity from your body may change the parts.

(UP 08-0010)

(REP 02-1320)

• When you install a Management Module, support its metal part with your hand that has the wrist strap. By so doing, you can discharge the static electricity from your body may change the parts.

(REP 02-1410, REP 02-1491)

• When you install an I/O Card(ENC), support its metal part with your hand that has the wrist strap. By so doing, you can discharge the static electricity from your body may change the parts.

(REP 02-1600)

 When you install a Drive or Controller, support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(REP 02-1840)

 When you install a Drive, I/O Module(ENC) or I/O Card(ENC), support its metal part with your hand that has the wrist strap. You can discharge static electricity by touching the metal plate.

(REP 02-1500, REP 02-1581, REP 02-1900, REP 02-2030)

• The Front Bezels of the Controller Box and the Drive Box are different in design.

(REP 02-1980)

• The Front Bezels of the CBXSL/CBXSS/CBSL/CBSS and the CBL are different in size.

(REP 02-1980)

When a device is kept with power-off for more than six months, the battery may be
excessively discharged, and it may cause an unrecoverable damage.
 In such a storing condition, the battery must be charged once every six months for more
than three hours.

(REP 03-0040)

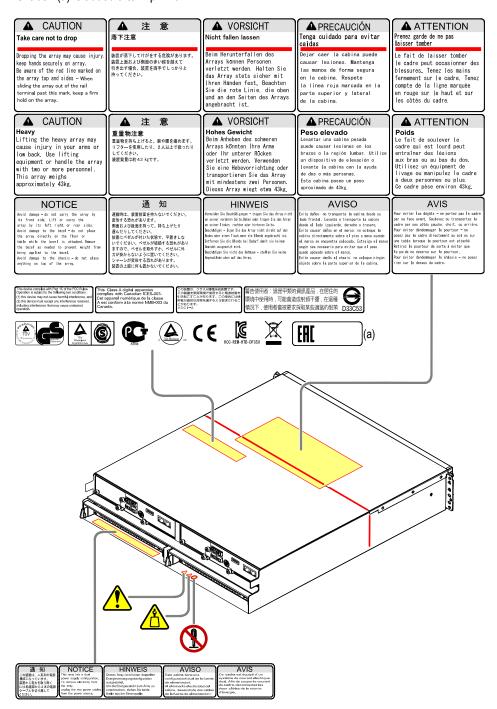
#### 3.7 Warning Labels Pasted on the Equipment

In this equipment, warning labels at pasted on portions requiring special care.

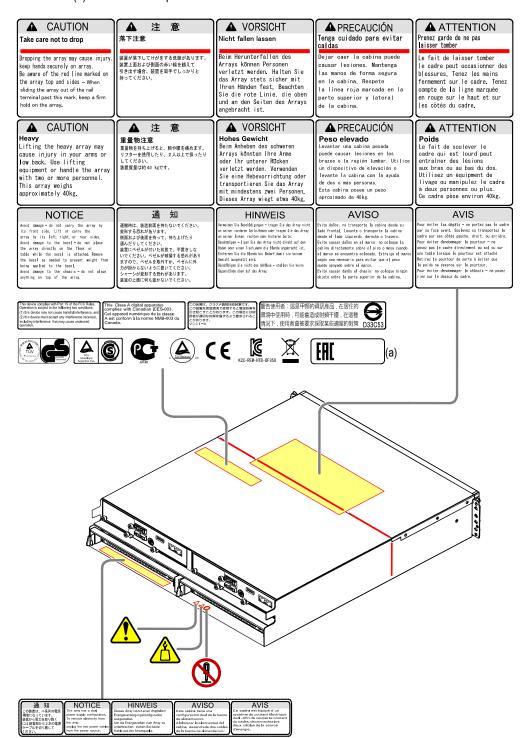
The following are the symbols contained in warning labels.

Symbol mark	Description
1	Do not disassemble the equipment.
	Take full care to handle the heavy equipment.
	Handling prohibition cautions in the status with static electricity
(B)	Putting something on the array (loading) is prohibited
	Be careful of your fingers to be caught

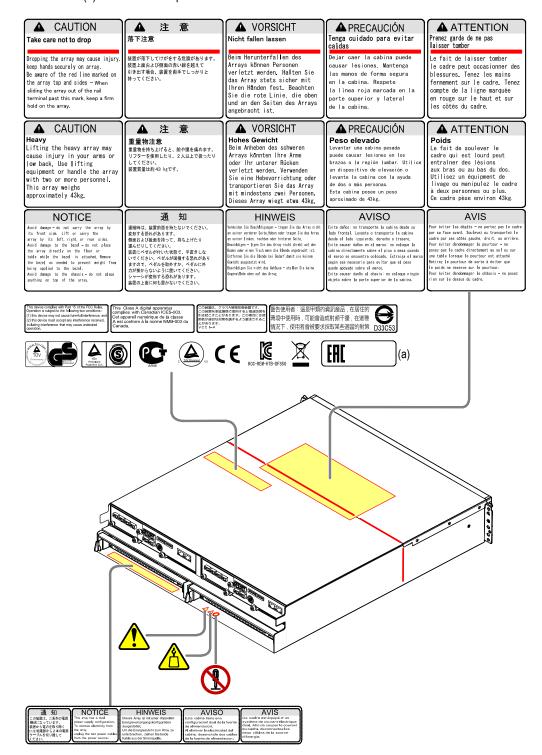
- 4. Narning Labels Affixed on the array
- 4.1 CBXSL



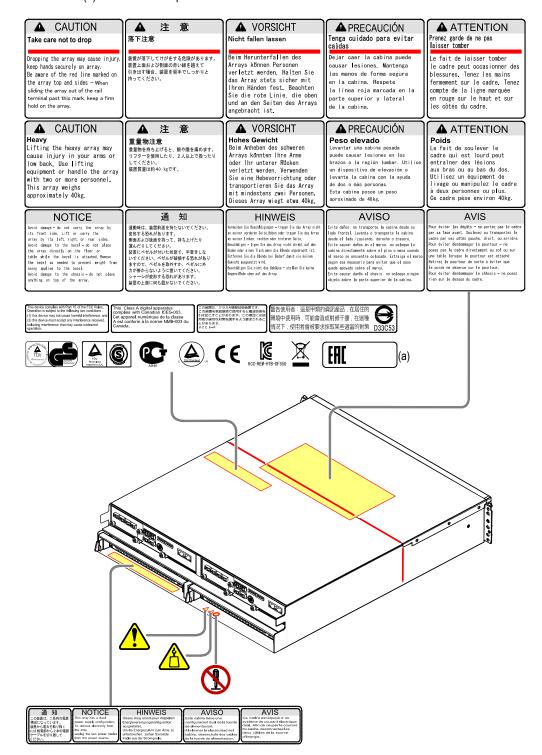
#### 4.2 CBXSS



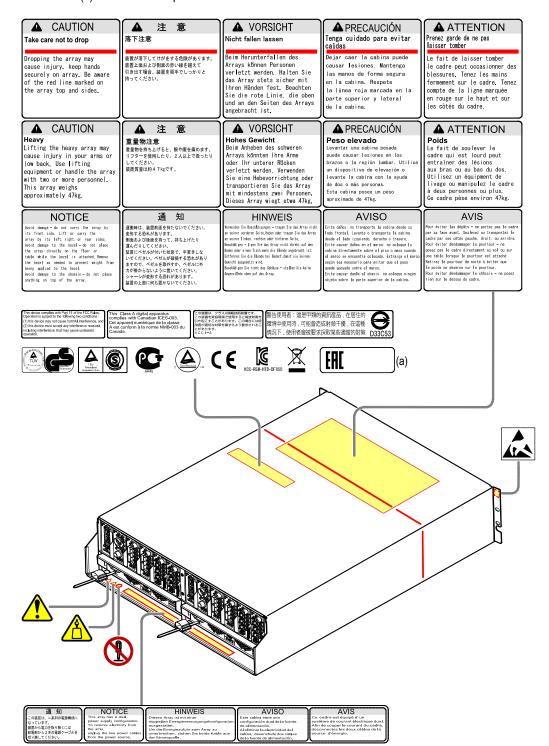
#### 4.3 CBSL



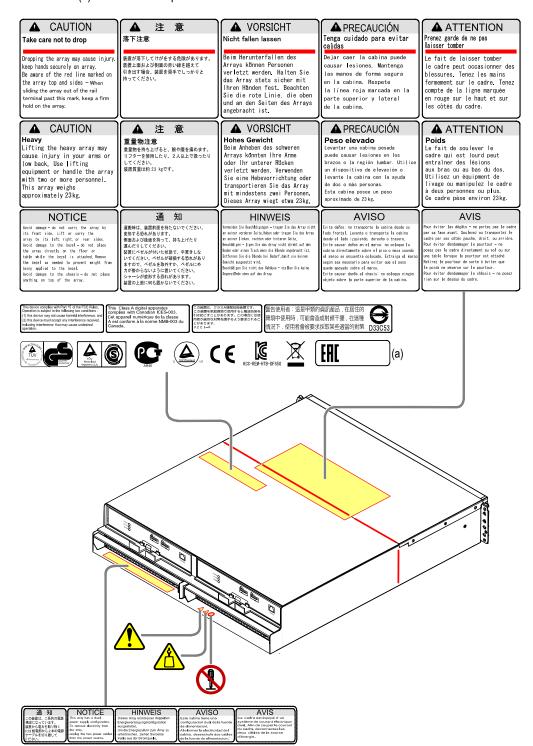
#### 4.4 CBSS



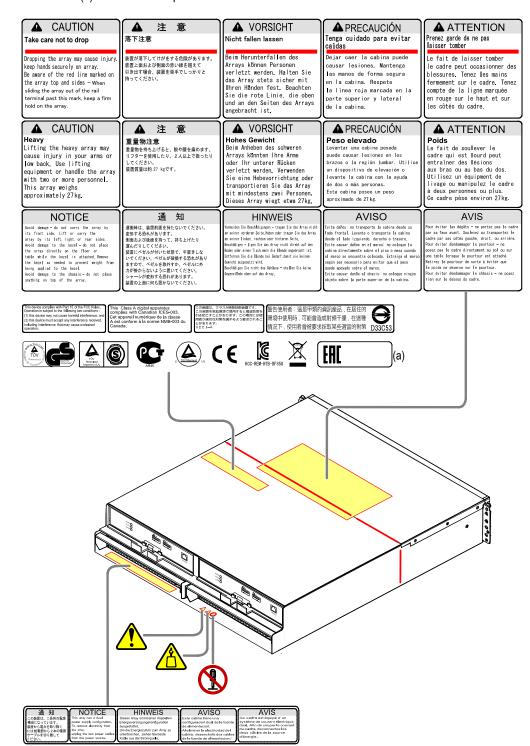
#### 4.5 CBL/CBLD



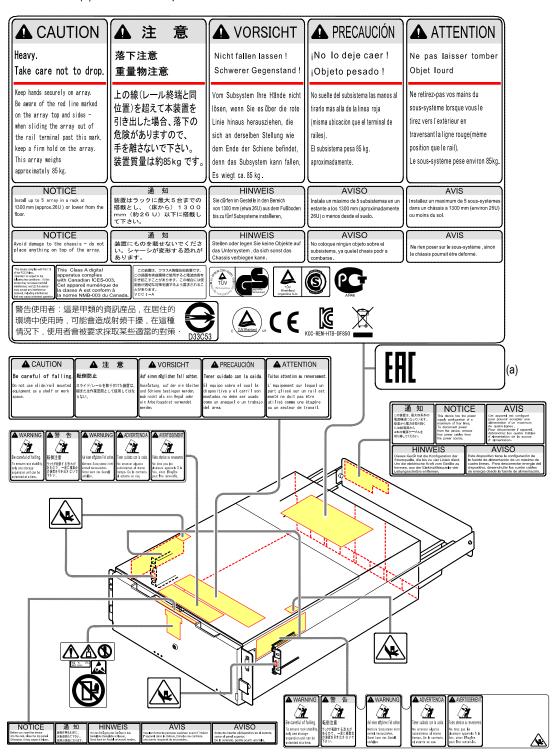
#### 4.6 DBS/DBSD



#### 4.7 DBL/DBLD



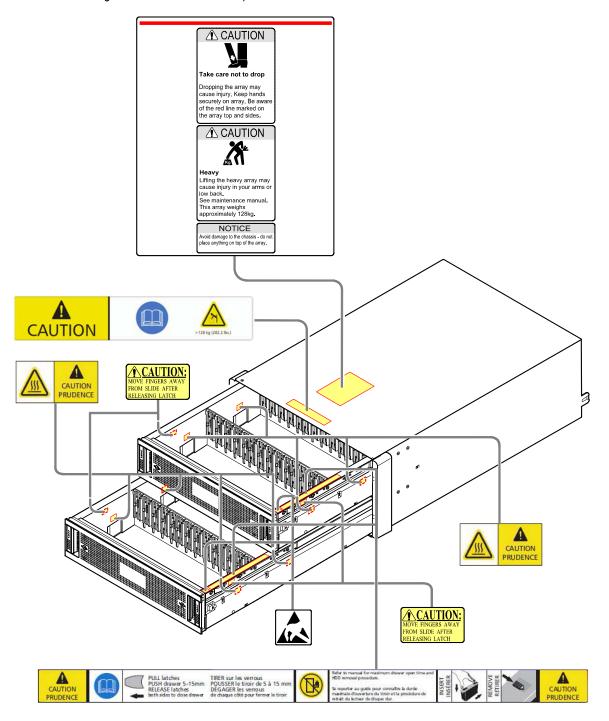
#### 4.8 DBX



#### 4.9 DBW

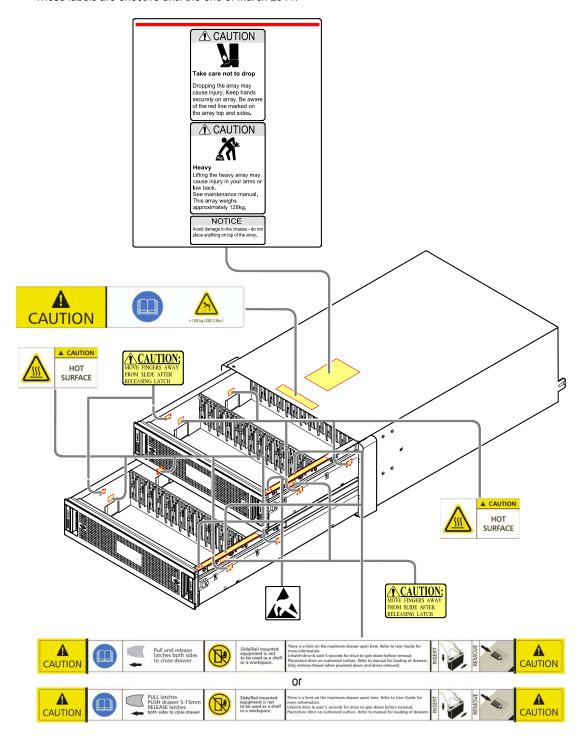
#### (1) Front side of DBW

The following new labels are added on April 2014.



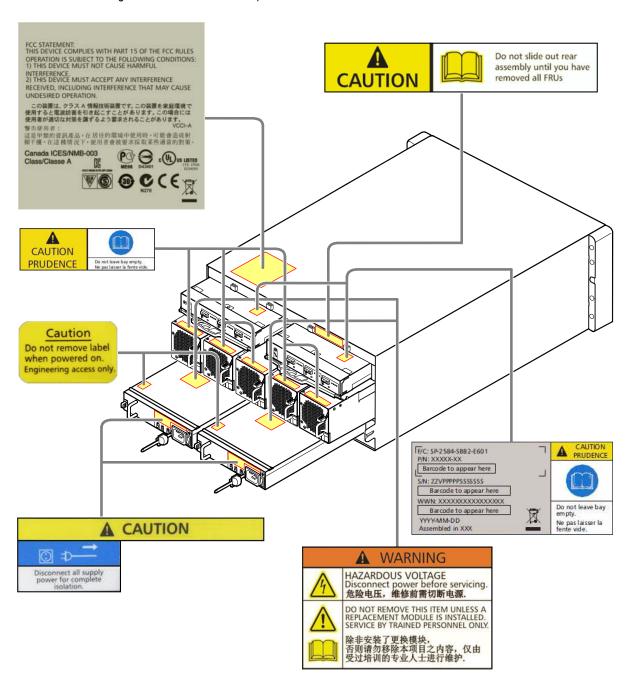
#### (2) Front side of DBW

These labels are effective until the end of March 2014.



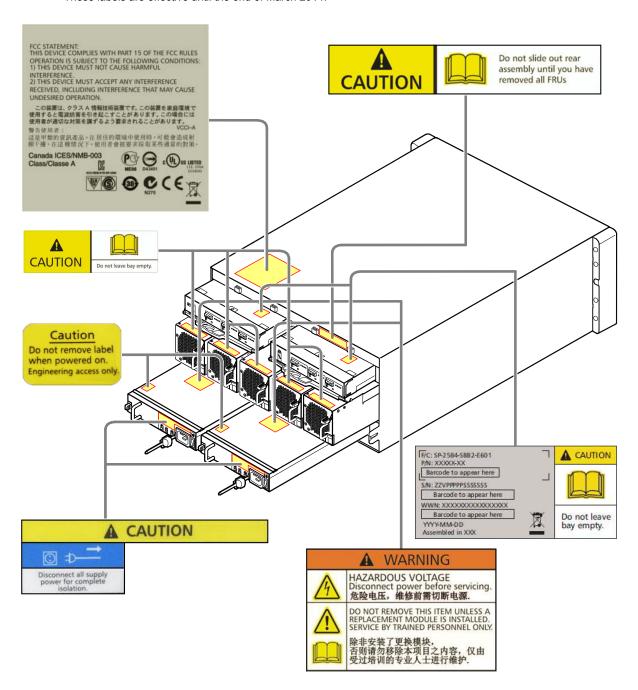
#### (3) Rear side of DBW

The following new labels are added on April 2014.

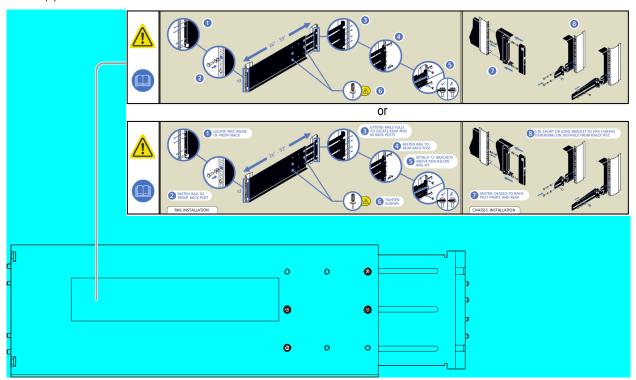


#### (4) Rear side of DBW

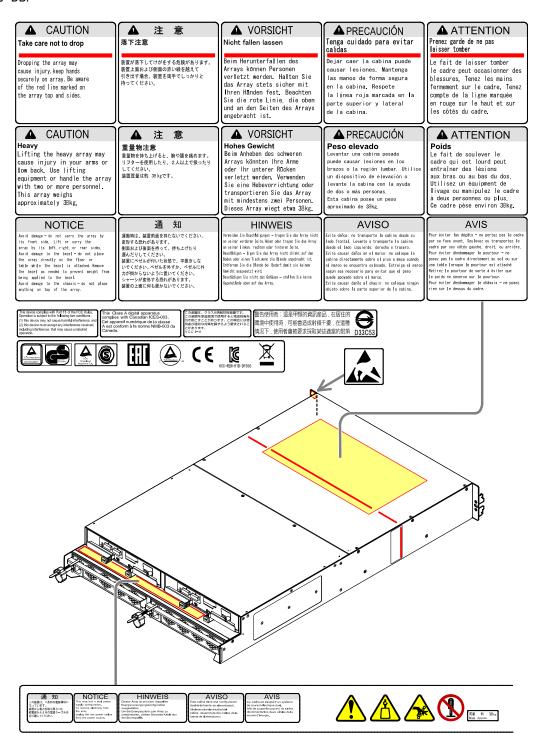
These labels are effective until the end of March 2014.



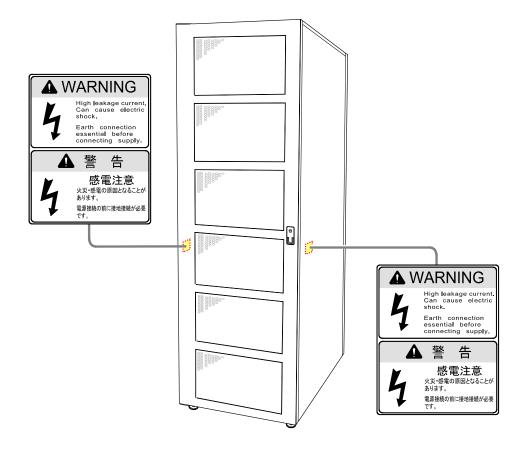
#### (3) Rail for DBW



#### 4.10 DBF

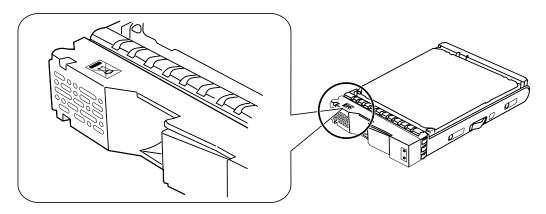


#### 4.11 RK40 Rack Frame

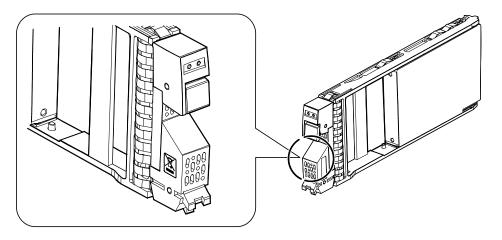


#### 4.12 Drive

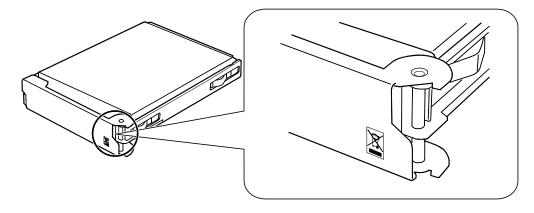
#### (1) For CBSL/CBXSL/DBL



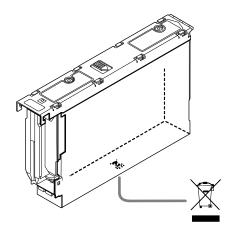
#### (2) For CBSS/CBXSS/DBS



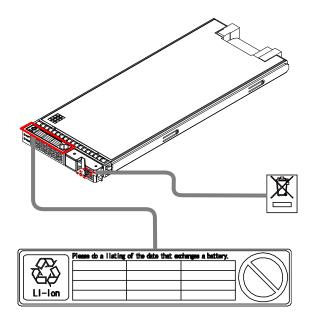
#### (3) For DBX



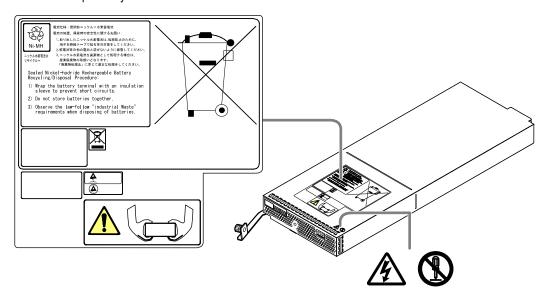
(4) For DBW



(5) For DBF

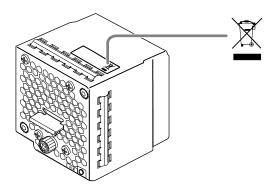


### 4.13 Cache Backup Battery

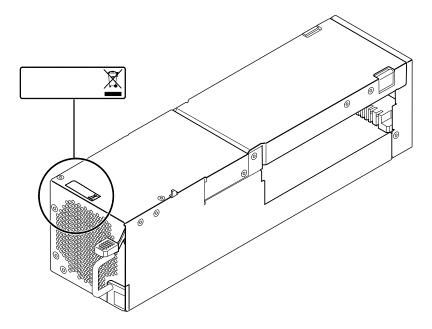


#### 4.14 Fan Module

(1) For CBL

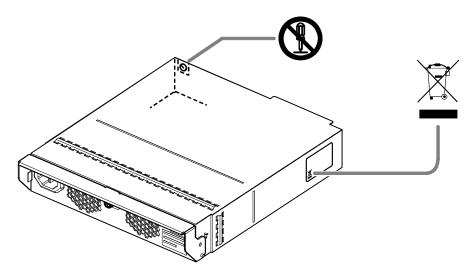


## (2) For DBW

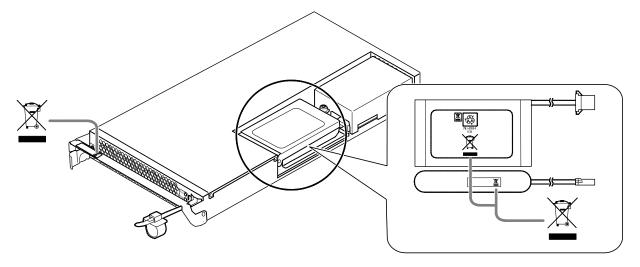


#### 4.15 Power Unit

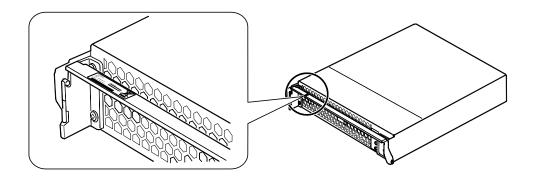
### (1) For CBL/CBLD



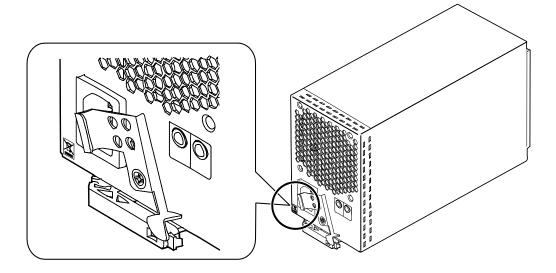
## (2) For CBSS/CBSL/CBXSS/CBXSL



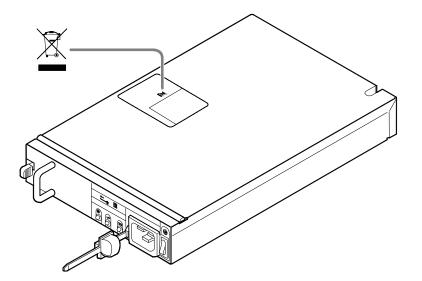
### (3) For DBS/DBSD/DBL/DBLD



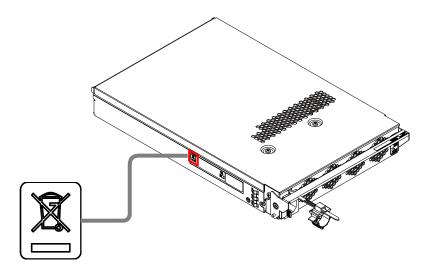
## (4) For DBX



## (5) For DBW

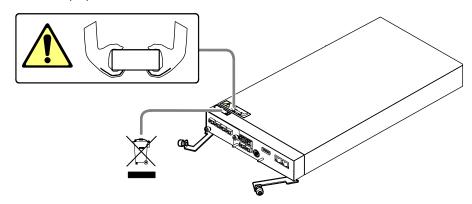


(6) For DBF

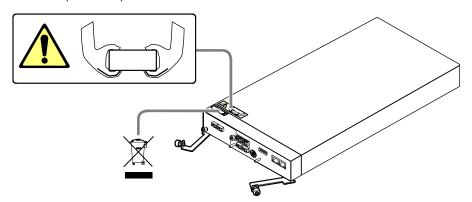


#### 4.16 Controller

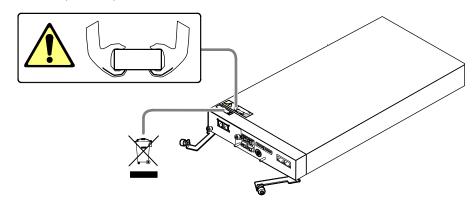
(1) For CBSS/CBSL (FC)



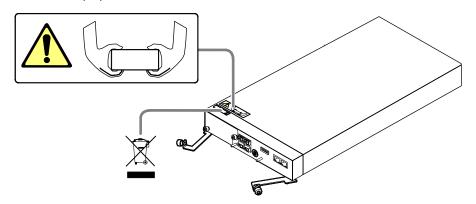
(2) For CBSS/CBSL (iSCSI 10G)



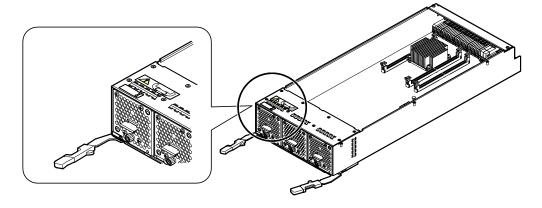
## (3) For CBSS/CBS (iSCSI 1G)



### (4) For CBXSS/CBXSL (FC)

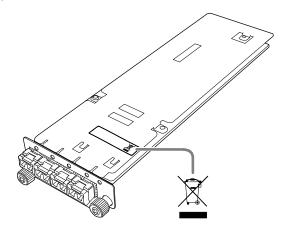


## (5) For CBL

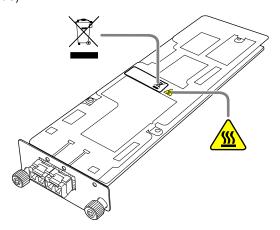


#### 4.17 Host I/O Board /Host I/O Module

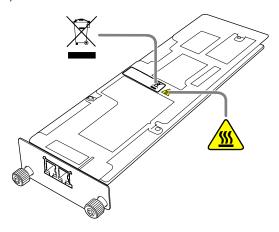
(1) Host I/O Board (FC 8G)



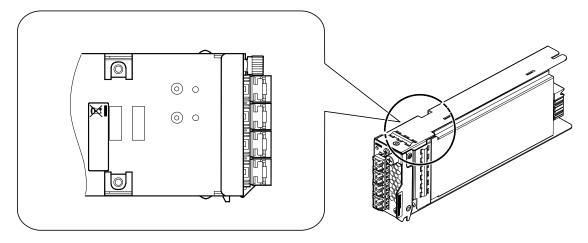
(2) Host I/O Board (iSCSI 10G)



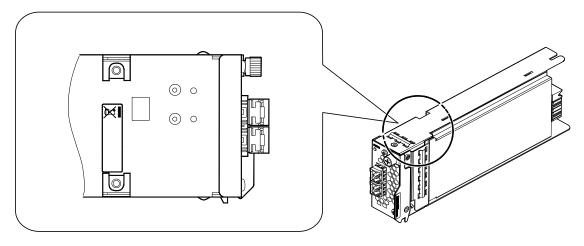
## (3) Host I/O Board (iSCSI 1G)



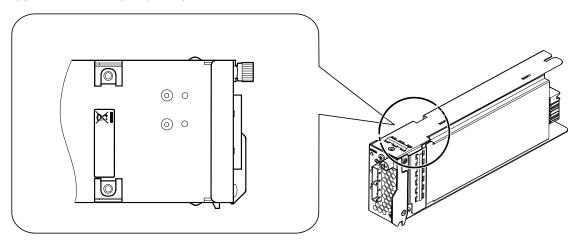
#### (4) Host I/O Module (FC 8G)



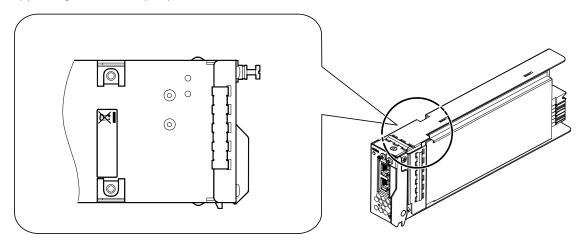
(5) Host I/O Module (iSCSI)



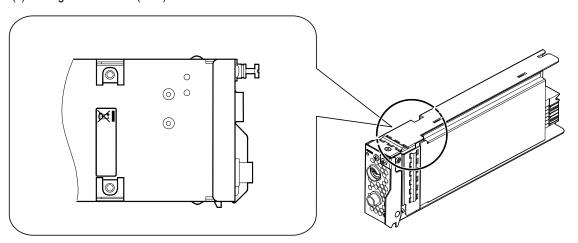
- 4.18 Drive I/O Module, Management Module
  - (1) Drive I/O Module (6G bps SAS)



### (2) Management Module (LAN)

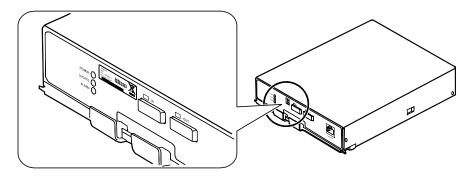


### (3) Management Module (UPS)

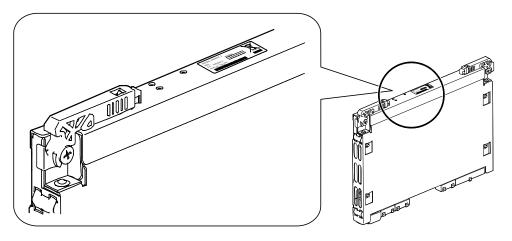


## 4.19 I/O Module (ENC) or I/O Card (ENC)

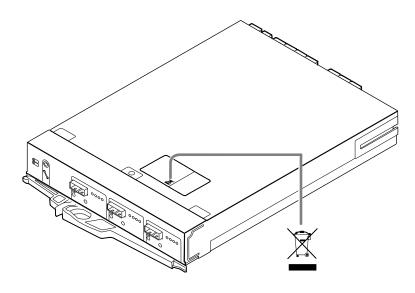
### (1) For DBL/DBS



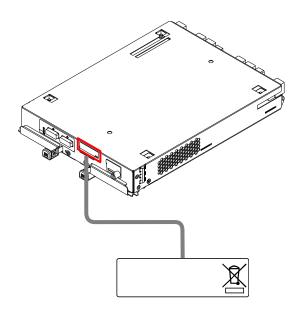
### (2) For DBX



## (3) For DBW

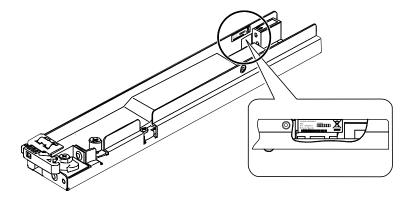


## (4) For DBF

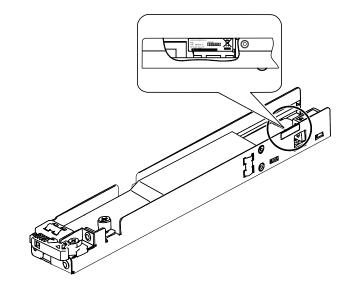


#### 4.20 Cable holder

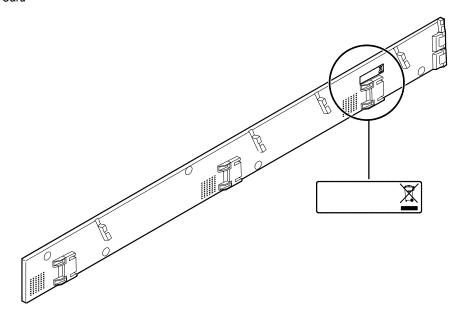
### (1) For IN



## (2) For OUT



#### 4.21 Side Card



#### 4.22 Rail

