

**DM8500-E**  
**Data Management Server**  
Quick Guide

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## Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents, but all statements, information, and recommendations in this manual do not constitute the warranty of any kind, express or implied.

## Environmental Protection




This product has been designed to comply with the environmental protection requirements. The storage, use, and disposal of this product must meet the applicable national laws and regulations.

# Safety and Compliance Information

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## Conventions Used Symbol

The symbols in this chapter are shown in the following table. They are used to remind the reader of the safety precautions during equipment installation and maintenance.

Safety Symbol	Description
	Generic alarm symbol: To suggest a general safety concern.
	ESD protection symbol: To suggest electrostatic-sensitive equipment.
	Electric shock symbol: To suggest a danger of high voltage.

## Safety Information

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### WARNING!

Installation and removal of the unit and its accessories must be carried out by qualified personnel. You must read all of the Safety Instructions supplied with your equipment before installation and operation.

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### Warnings:

- If the product does not work properly, please contact your dealer or the nearest service center. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
  - This installation should be made by a qualified service person and should conform to all the local codes.
  - Please install blackouts equipment into the power supply circuit for convenient supply interruption.
  - The separate earthing terminal must be permanently connected to earth.
  - For AC supplied model: The plug-socket combination must be accessible at all times as it serves as the main disconnecting device.
  - Before the power cable is installed or removed, the power must be turned off.
  - To avoid heat accumulation, good ventilation is required for a proper operating environment.
  - Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.
- 



**Caution:** Fiber optic ports – optical safety.



Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.

**Caution:** Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.

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## Regulatory Compliance

### FCC Part 15

This equipment has been tested and found to comply with the limits for digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

## LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

## WEEE Directive—2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

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# 1 Product Introduction

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The DM8500-E Data Management server (referred to as DM8500-E below) is a software/hardware server based on the IP Multimedia Operating System (IMOS) and oriented toward IP-based video surveillance systems. Integrated with the Data Manager 3.0 (DM3.0) and Backup Manager (BM) software, the DM8500-E offers functions to manage storage devices and audio/video data.

## Appearance

The actual appearance of the DM8500-E may be different from the illustrations below.

**Figure 1-1** Front view

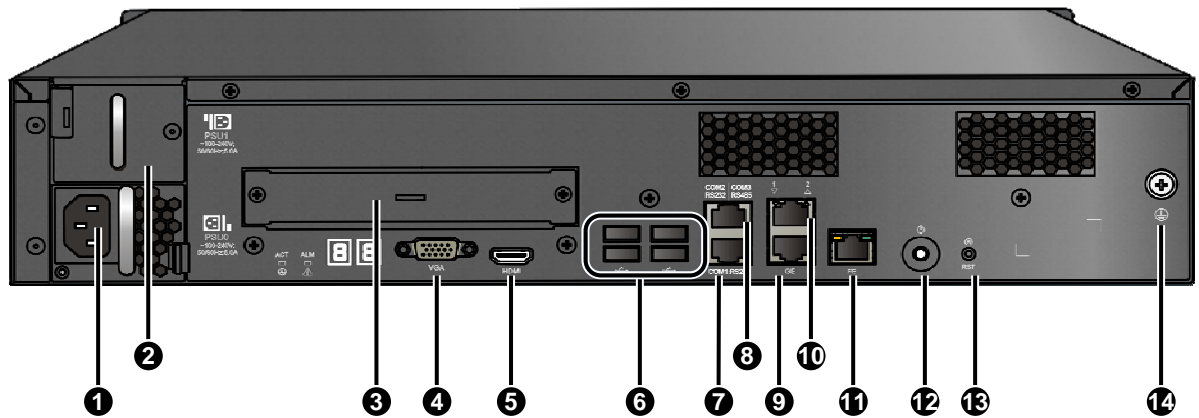


**Figure 1-2** Rear view



## Ports and Buttons

**Figure 1-3** Ports and buttons on the rear panel



1: AC input (for PSU 0)	2: Extended power slot (for PSU 1)
3: Extended Network Interface Card (NIC) slot	4: VGA video output
5: HDMI video output	6: USB (× 4)
7: Serial port 1 (RS-232)	8: Serial port 2 (RS-232)/Serial port 3 (RS-485)
9: GE port 1	10: GE port 2
11: FE port	12: Power on/off button
13: Reset button	14: Grounding terminal

For detailed descriptions of the ports and buttons, refer to [Table 1-1](#).

**Table 1-1** Port and button descriptions

Port	Description
AC input	100 - 240 V AC, 50Hz/60Hz
Extended power slot	Standard: 1 slot Optional: 2 slots in 1+1 redundancy mode
NIC	Two options: <ul style="list-style-type: none"> <li>NIC with 4 GE ports (RJ-45)</li> <li>NIC with 2 10GE ports (SFP+)</li> </ul>

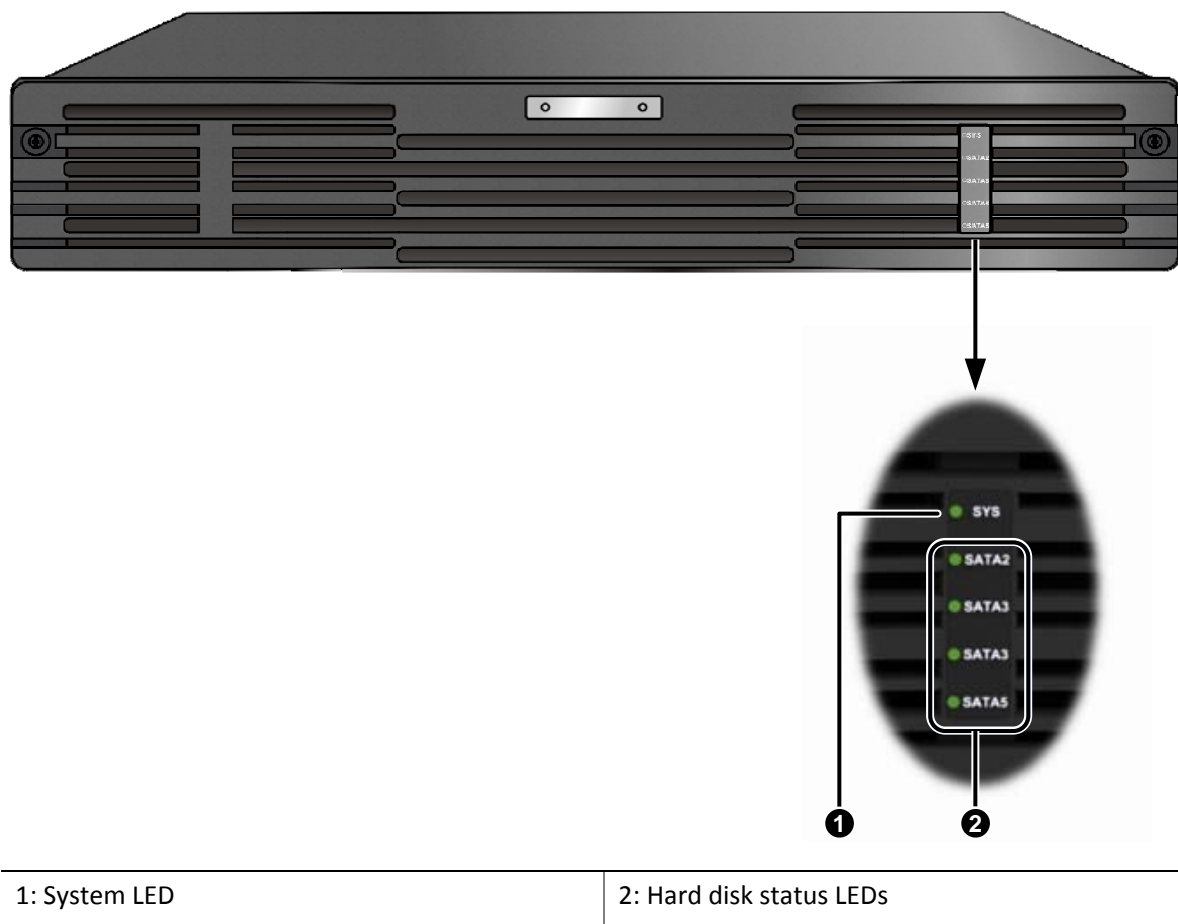


Port	Description
VGA output	<p>For connection to a VGA display device.</p> <p>Supported solutions and screen refresh rates:</p> <ul style="list-style-type: none"> <li>• 1920 × 1080, 50P</li> <li>• 1920 × 1080, 60P</li> <li>• 1280 × 720, 50P</li> <li>• 1280 × 720, 60P</li> <li>• 1280 × 1024, 60 HZ</li> <li>• 1024 × 768, 60 HZ</li> </ul>
HDMI video output	<p>For connection to an HDMI display device.</p> <p>Supported resolutions and screen refresh rates:</p> <ul style="list-style-type: none"> <li>• 1920 × 1080, 50P</li> <li>• 1920 × 1080, 60P</li> <li>• 1280 × 720, 50P</li> <li>• 1280 × 720, 60P</li> <li>• 1280 × 1024, 60 HZ</li> <li>• 1024 × 768, 60 HZ</li> </ul>
USBs	For connection to a USB device.
Serial port 1 (RS-232)	RJ-45 port for debugging and maintenance purposes.
Serial port 2 (RS-485/RS-232)	RJ-45 port compatible with RS-485 and RS-232 ports.
GE port	10/100/1000 Mbit/s adaptive Ethernet port for connection to a service network.
FE port	10/100 Mbit/s adaptive Ethernet port for connection to a client computer.
Power on/off	Pressing and holding this button for 3 seconds powers off the device. However, this method is not recommended.
Reset button	Pressing this button once restarts the device.
Grounding terminal	For connection to the grounding cable of the device.

# LEDs and Nixie Tubes

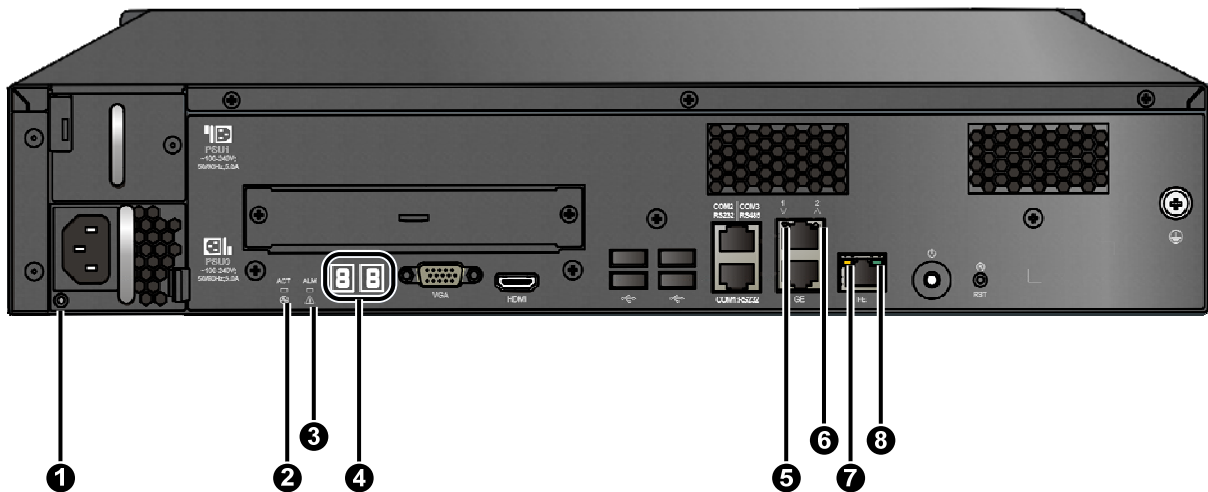
## Front panel LEDs

Figure 1-4 Front panel LEDs



## Rear panel LEDs and nixie tubes

Figure 1-5 Rear panel LEDs and nixie tubes



1: Power module LED	2: Heartbeat LED
3: Alarm LED	4: Device status nixie tubes
5: GE port 1 LED	6: GE port 2 LED
7: FE port LINK LED	8: FE port ACT LED

### LED and nixie tube descriptions

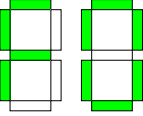
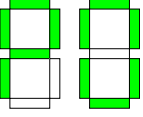
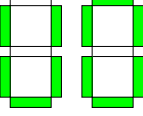
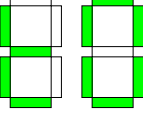
For LED descriptions, refer to [Table 1-2](#). For nixie tube descriptions, refer to [Table 1-3](#).

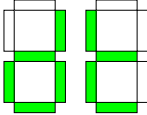
**Table 1-2** LED descriptions

LED	Color	Indication
System LED	Green/yellow	<ul style="list-style-type: none"> <li>Steady green: The system is operating properly.</li> <li>Steady yellow: At least one hardware component is faulty.</li> </ul>
Hard disk status LED	Green	<p>LEDs SATA2-SATA5 indicate status of hard disks in slots 2-5:</p> <ul style="list-style-type: none"> <li>Off: The hard disk is powered off or not installed.</li> <li>Steady green: The hard disk is linked.</li> <li>Blinking green: The hard disk is reading or writing data.</li> </ul>
Power module LED	Green/red	<ul style="list-style-type: none"> <li>Off: The power module is not connected to AC power.</li> <li>Steady green: The power module is connected to AC power, and the device is powered on.</li> <li>Blinking green: With one power module installed, the power module is connected to AC power, but the device is not powered on.</li> <li>Blinking red: With two power modules installed, power module A is connected to AC power but B is not, and the device is powered on, then the LED for power module B blinks red.</li> <li>Steady red: The power module is faulty.</li> </ul>
Heartbeat LED	Green	<ul style="list-style-type: none"> <li>Off: The device is powered off.</li> <li>Blinking at 1 Hz: The system is operating properly.</li> </ul> <p><b>Note:</b>  <i>The Heartbeat LED does not blink until the system is completely started.</i></p>
Alarm LED	Yellow	<ul style="list-style-type: none"> <li>Off: The device hardware is normal.</li> <li>Steady on: The device has a faulty hardware component.</li> </ul>

LED		Color	Indication
GE port LED		Green/yellow	<ul style="list-style-type: none"> <li>Off: No network connection.</li> <li>Steady green: A network connection is established, and the data transfer rate is 1000 Mbit/s.</li> <li>Blinking green: The data transfer rate is 1000 Mbit/s, and the port is transmitting or receiving data.</li> <li>Steady yellow: A network connection is established, and the data transfer rate is 100 Mbit/s.</li> <li>Blinking yellow: The data transfer rate is 100 Mbit/s, and the port is transmitting or receiving data.</li> </ul>
FE port LEDs	LINK (Link status LED)	Yellow	<ul style="list-style-type: none"> <li>Off: No network connection.</li> <li>Steady on: A network connection is established.</li> </ul>
	ACT (Data transceiving LED)	Green	<ul style="list-style-type: none"> <li>Steady on: A network connection is established, but the port is not transmitting or receiving data.</li> <li>Blinking: A network connection is established, and the port is transmitting or receiving data.</li> </ul>

**Table 1-3** Nixie tube descriptions

Status	Indication
Two digits	It shows the main board temperature (in Celsius degrees) during system operation. Blinking digits indicates a temperature alarm.
F0/0F/FF(F blinks) 	Blinking F indicates that the corresponding fan module is faulty. 0 indicates that the corresponding fan module is working properly.  The nixie tube on the left represents fan module 0, and that on the right represents fan module 1.
P0/0P/PP(P blinks) 	Blinking P indicates that the corresponding power module is faulty. 0 indicates that the corresponding power module is working properly.  The nixie tube on the left represents PSU 0, and that on the right represents PSU 1.
U0/0U/UU(U blinks) 	<ul style="list-style-type: none"> <li>U0: The CMOS battery is under voltage.</li> <li>0U: The main board voltage is abnormal.</li> <li>UU: Both the CMOS battery voltage and the main board voltage are abnormal.</li> </ul>
t0/0t/tt(t blinks) 	<ul style="list-style-type: none"> <li>t0: The fan on the left side of the CPU radiator is faulty.</li> <li>0t: The fan on the right side of the CPU radiator is faulty.</li> <li>Tt: The fans on both sides of the CPU radiator are faulty.</li> </ul>

Status	Indication
dt blinks 	According to S.M.A.R.T, the hard disk temperature is out of the normal range. In this case, you need to check the dust filter.

## System Specifications



### NOTE!

The specifications are subject to change without prior notice.

**Table 1-4** System specifications

Item	Description
Height	2 U (86.1mm)
Dimensions (H x W x D)	86.1 mm x 446 mm x 500 mm (excluding the mounting brackets and slide rails)
Number of fans	4
Weight	<ul style="list-style-type: none"> <li>Standard: &lt;12 kg</li> <li>Maximum: &lt;14 kg</li> </ul>
Overall power consumption	Maximum: 200 W
Maximum number of hard disks	4
Hard disk type	SATA II
Working temperature	0°C to 40°C Recommended range: 10°C to 35°C
Working humidity	20% to 80% (non-condensing)
Storage temperature	-20°C to +60°C
Storage humidity	10% to 90% (non-condensing)
Working altitude	- 60 m to +5000 m

## Factory Default Settings for Network Parameters

[Table 1-5](#) lists the factory default settings for the network parameters. You may change these settings as required.

**Table 1-5** Factory default settings for network parameters

Item	Description
FE port	Obtains an IP address through DHCP.
GE port 1	<ul style="list-style-type: none"><li>• IP address/subnet mask: 192.168.0.12/255.255.255.0</li><li>• Default gateway: None.</li></ul>
GE port 2	Obtains an IP address through DHCP.
Extended network port (optional)	Obtains an IP address through DHCP.
Host name	The host name is "localhost".

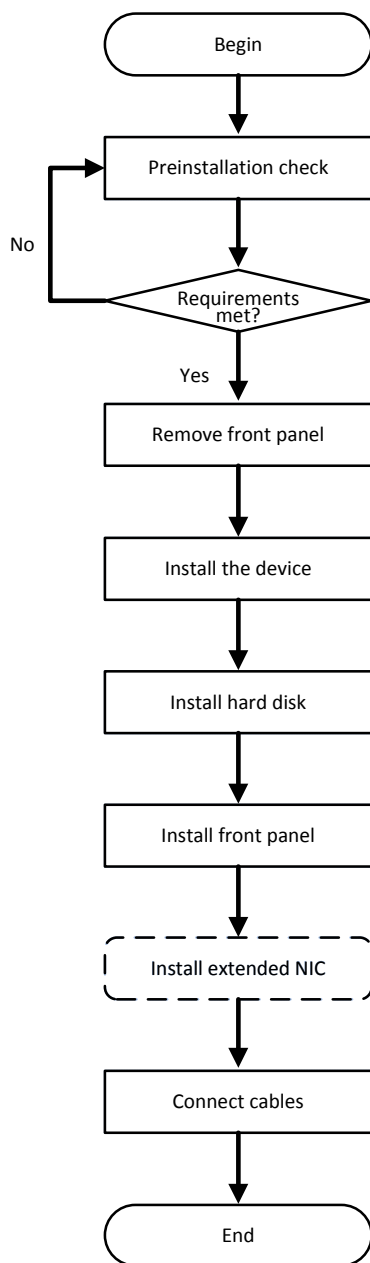
## 2 Hardware Installation

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This chapter describes the hardware installation procedure.

### Installation Procedure

**Figure 2-1** Hardware installation flowchart



# Preinstallation Check

## Checking device components

Check the device model and accessories delivered along with the package to ensure that all the device components are complete and intact. For details about the device model, types and quantities of accessories, see the packing list.

## Checking installation tools

Prepare the following tools:

- Straight screwdriver and cross screwdriver
- Antistatic wrist strap or gloves

## Checking the installation site

The device must be installed indoors, and the lightning protection and grounding requirements must be met.

- Ensure that the installation environment meets the lightning protection requirements. If necessary, use appropriate lightning protection apparatuses for the device.
- Ensure that the device is properly grounded through the grounding terminal. For details, refer to [“Connecting the Grounding Cable”](#).



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### WARNING!

Do not remove the tamper seal (as shown in [Figure 2-2](#)) from the device chassis without confirmation from your local dealer.

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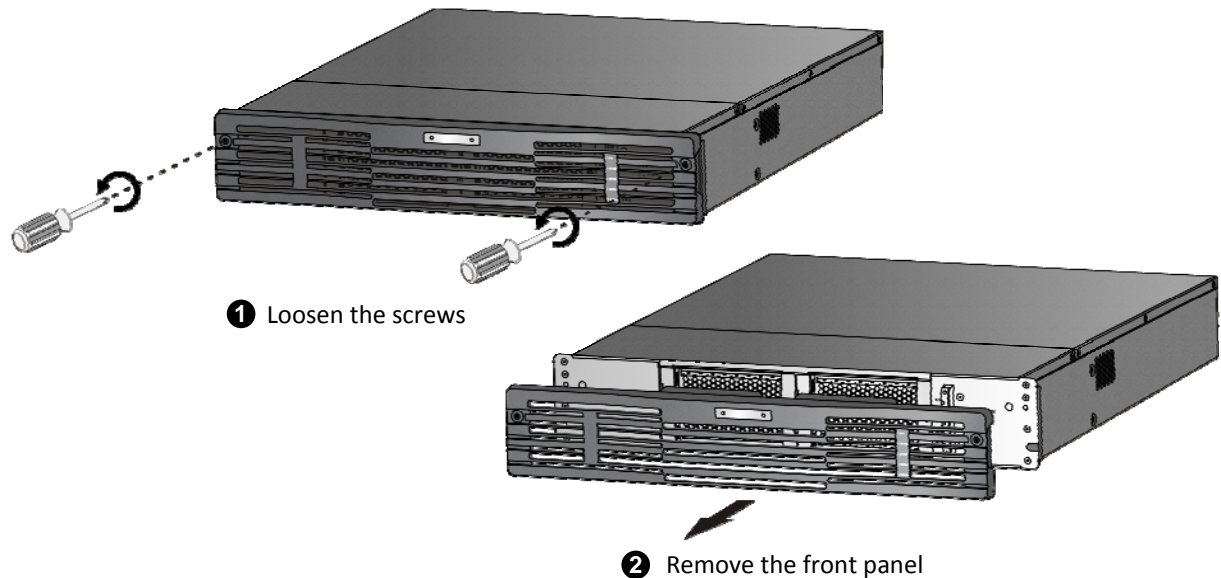
**Figure 2-2** Tamper seal





## Removing the Front Panel

**Figure 2-3** Removing the front panel



## Installing the Device in a 19-inch Cabinet

### Preinstallation Check

Check the grounding and stability of the cabinet. Ensure that the cabinet has sufficient weight-bearing capacity for the device, and no obstacle is affecting the installation inside or around the cabinet.

Before installing the device in a standard 19-inch cabinet, check that:

- The cabinet is properly grounded and stabilized.
- The weight-bearing capacity of the cabinet is sufficient to support the device, and no obstacle inside or around the cabinet will affect the device installation.
- The cabinet door is not a glass door.
- The cabinet is supported by a bracket instead of rollers.

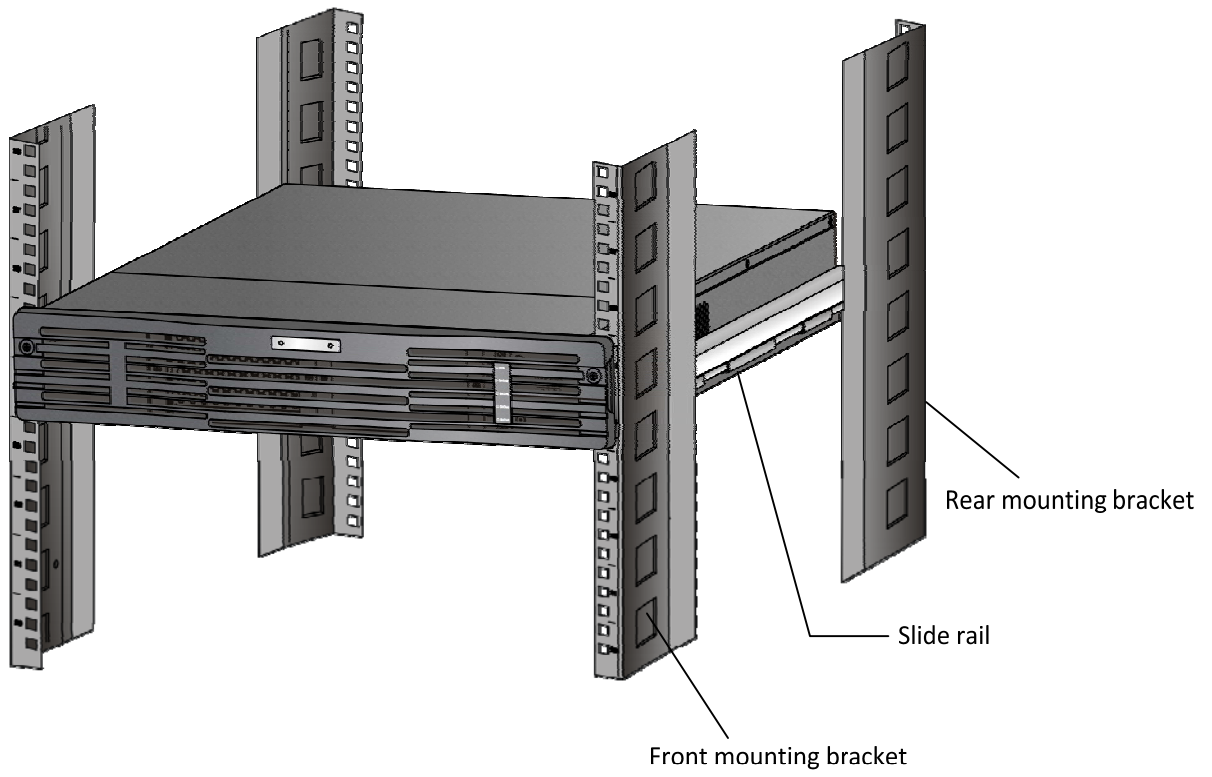
### Installation Procedure

#### Planning the installation position in the cabinet

Plan the space and position according to the height (2 U) of the device and the number of devices you want to install. If the cabinet is equipped with a tray, use the tray for the installation. If no tray is available, use slide rails.

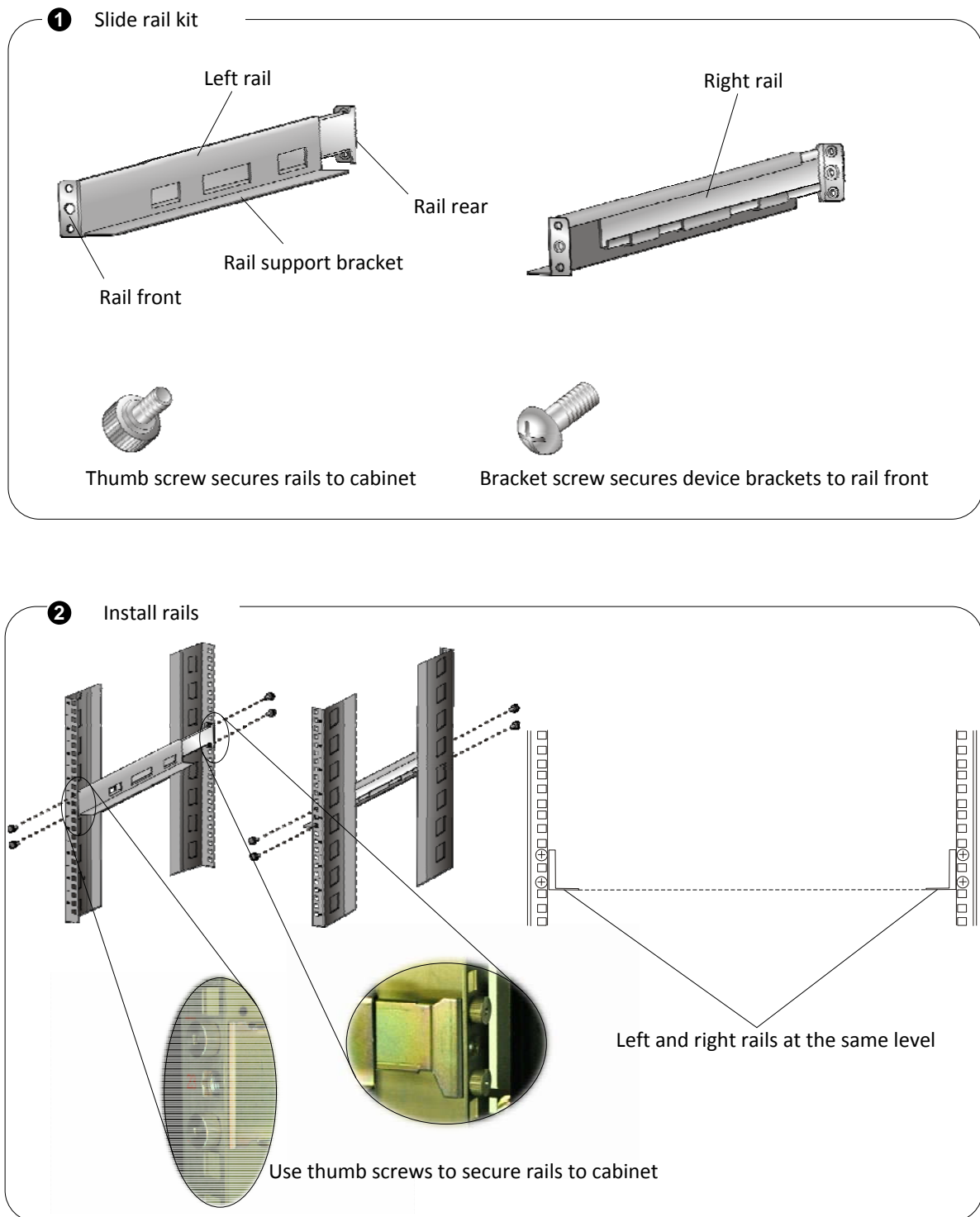
This procedure takes slide rails as an example. [Figure 2-4](#) shows the slide rails and the installed device in the cabinet.

**Figure 2-4** Installed device in the cabinet



## Attaching the slide rails to the cabinet

Figure 2-5 Attaching the slide rails



### NOTE!

You can extend the slide rails to fit the cabinet.

## Mounting the device onto the slide rails

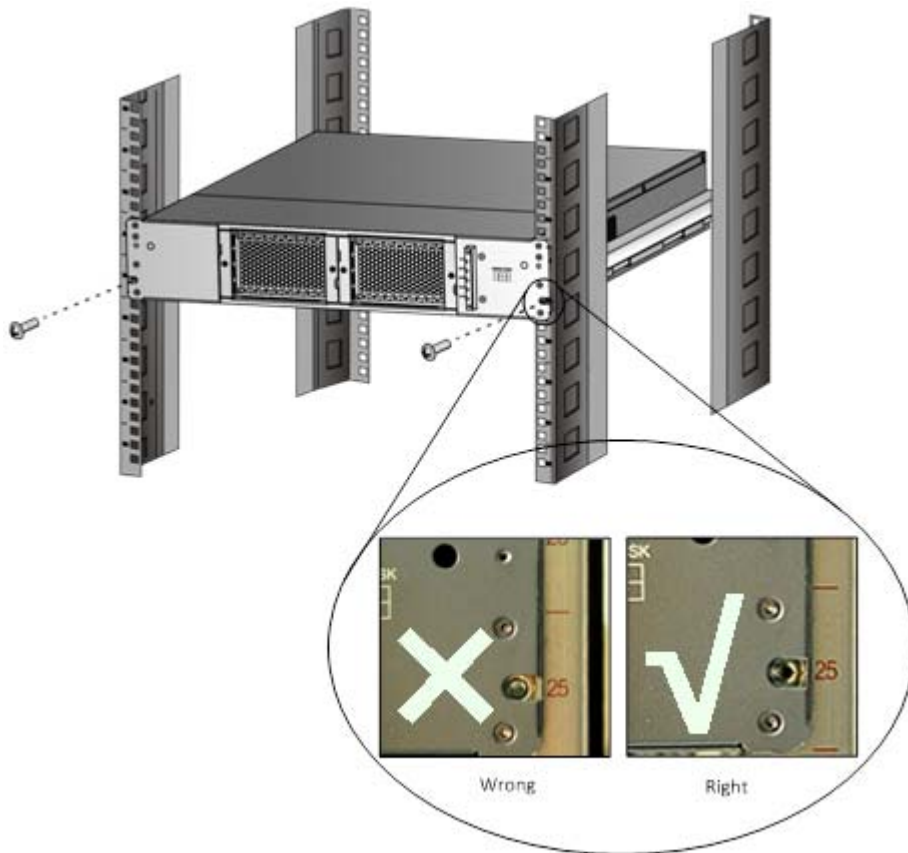


### CAUTION!

Ensure that the device perfectly aligns with the U marks on the mount bars and is in full contact with the tray or the slide rails. A gap between the device and the tray or the slide rails will cause instability of the device and may affect its operation stability. For hard disks, instability may cause damage and increase read/write errors.

1. Place the device onto the slide rails and then push the device slightly into place.
2. Align the screw slots on the device with the screw holes on the cabinet, insert the screws through the holes and then tighten the screws.

**Figure 2-6** Securing the device to the cabinet using screws



## Installing the Device on a Workbench

If a 19-inch cabinet is not available, you may directly place the device on a clean workbench.

Before installing the device on the workbench, check that:

- The workbench is firm enough to bear the weight of the device and the cables.
- The workbench is stabilized and properly grounded.

- Room of at least 30 cm in the front and at the back, and at least of 10 cm on both sides of the device should be reserved on the workbench for heat dissipation purpose.
- No other object is placed on the device.

## Installing the Hard Disks

The slots for hard disks are inside the device, so you need to remove the front panel and the dustproof cover first.

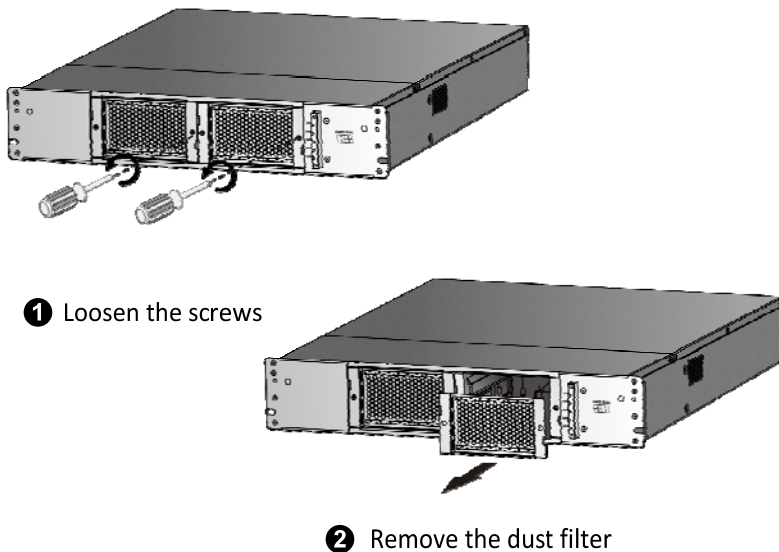
### Preinstallation Check

- Carefully read the instructions for the hard disks included in the package.
- Use an antistatic wrist strap or antistatic gloves throughout the procedure.

### Installation Procedure

#### Removing the dust filter

**Figure 2-7** Removing the dust filter



#### Inserting the hard disk

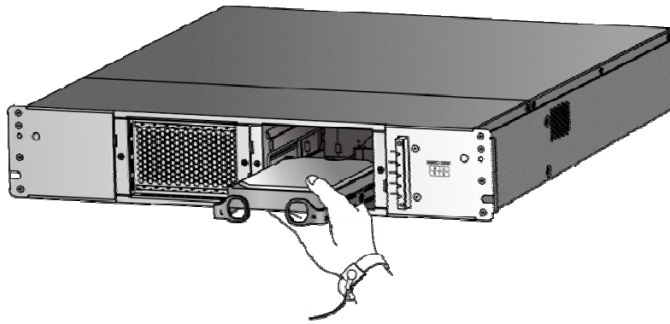
Unpack the hard disk, and then slowly insert it into the hard disk slot.



#### CAUTION!

Two hard disks are delivered with the device and should be installed in slots 2 and 3.

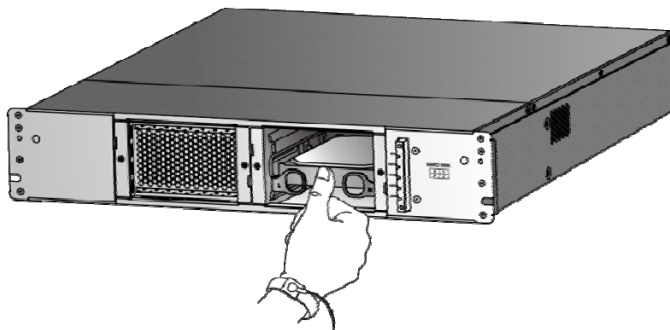
**Figure 2-8** Inserting the hard disk



### **Pushing the hard disk in place with your thumb**

When the hard disk is inserted halfway, slowly push the hard disk with your thumb till it clicks into place.

**Figure 2-9** Pushing the hard disk in place with your thumb



## **Installing the Front Panel**

Attach the front panel to the front of the device and then tighten the captive screws.

**Figure 2-10** Installing the front panel



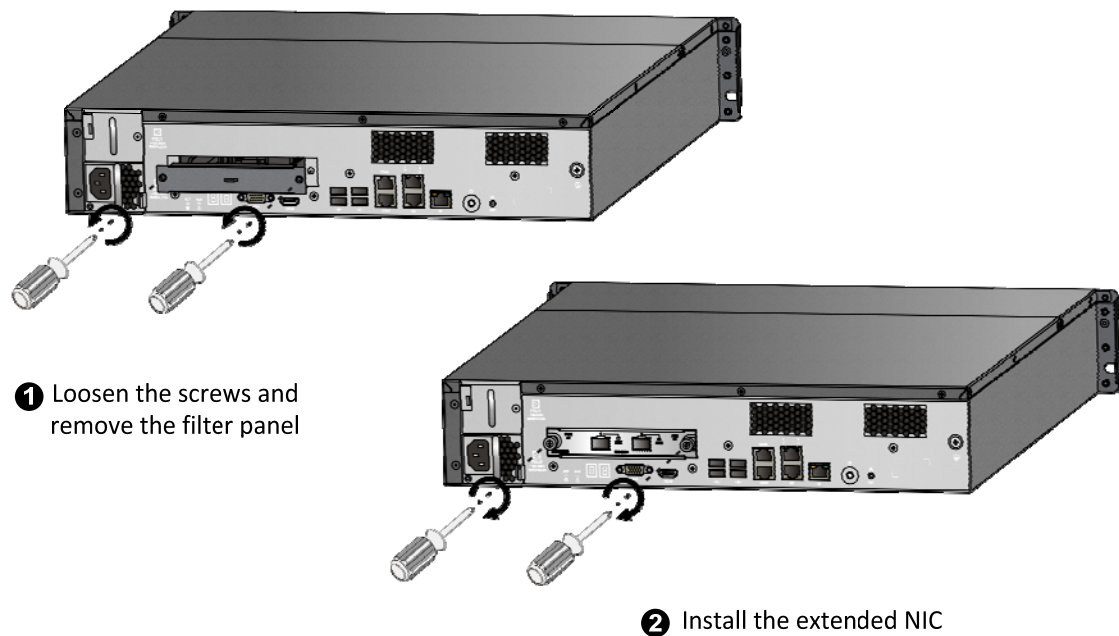
## **Installing the Extended Network Interface Card (Optional)**

Two types of extended network interface cards (NICs) are allowed. You may choose either type as required:

- NIC with 2 10GE ports (SFP+)
- NIC with 4 GE ports (RJ-45)

The following procedure takes an NIC with two 10GE ports as an example: Remove the filler panel, and then install the extended NIC.

**Figure 2-11** Installing the extended NIC

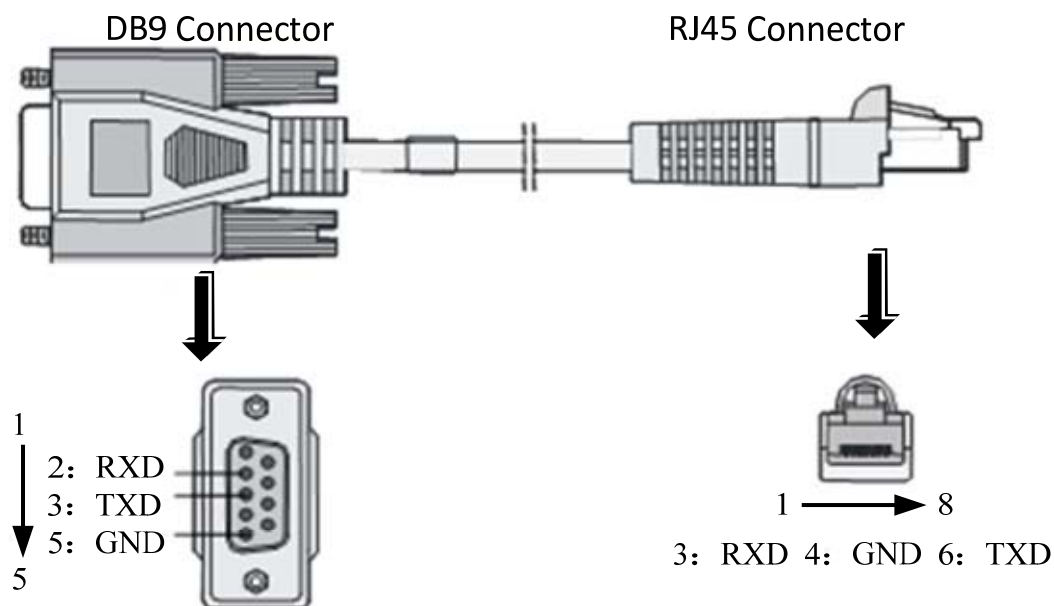


## Connecting Cables

### Connecting the RS-232 Cable

[Figure 2-12](#) shows cable requirements for device maintenance through serial port 1 (RS-232). The DB9 port is connected to the PC, and the RJ-45 port is connected to serial port 1 on the device.

**Figure 2-12** RS232 cable



# Connecting the Grounding Cable



## WARNING!

Ensure that the device is properly grounded to prevent personal injury and device damage (due to lightning and interference).

Ensure that the grounding resistance does not exceed 5 ohms, and the grounding cable is not longer than 30 meters. For more information, refer to YD5098 specifications.

Connect one end of the grounding cable to the grounding terminal of the device, and connect the other end to a reliable grounding point, as shown in [Figure 2-13](#).

**Figure 2-13** Connecting the grounding cable



## Using a grounding bar in the equipment room

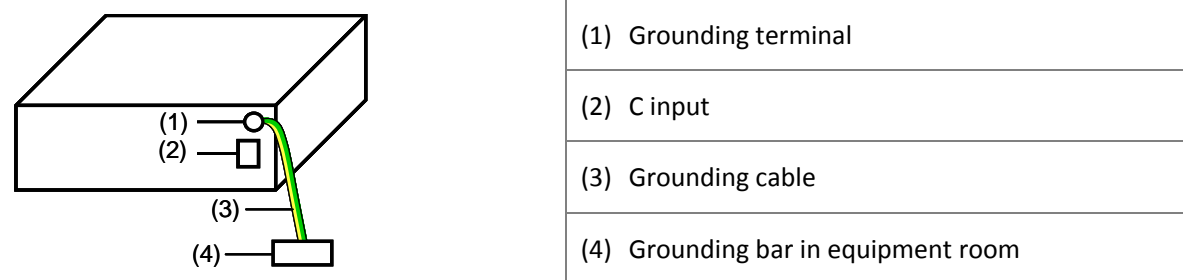


## NOTE!

If the cabinet you are using provides a grounding bar, connect the grounding cable of the device to the grounding bar.

If a grounding bar is available in the equipment room, connect the other end of the grounding cable to the grounding bolt on the grounding bar and then tighten the secure nut, as shown in [Figure 2-14](#).

**Figure 2-14** Grounding using a grounding bar in the equipment room







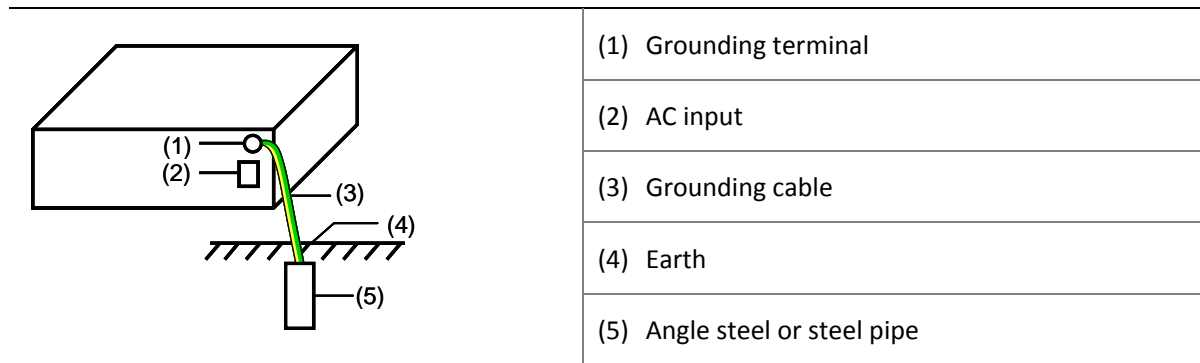
## CAUTION!

Do not connect the grounding cable to a fire fighting pipe, heating radiator, or lightning arrester. The grounding cable must be connected to the grounding system of the equipment room.

### Using a buried grounding conductor

If the installation environment provides no grounding bar but a mud ground which can be used to bury a grounding conductor, you may bury a angle steel (or pipe) at least 0.5 m long into the ground and use the buried angle steel (or pipe) for grounding purpose. The grounding cable of the device must be connected and soldered to the steel angle (or pipe), and the joint point should be protected with anti-corrosion treatment. [Figure 2-15](#) shows how the grounding cable should be connected.

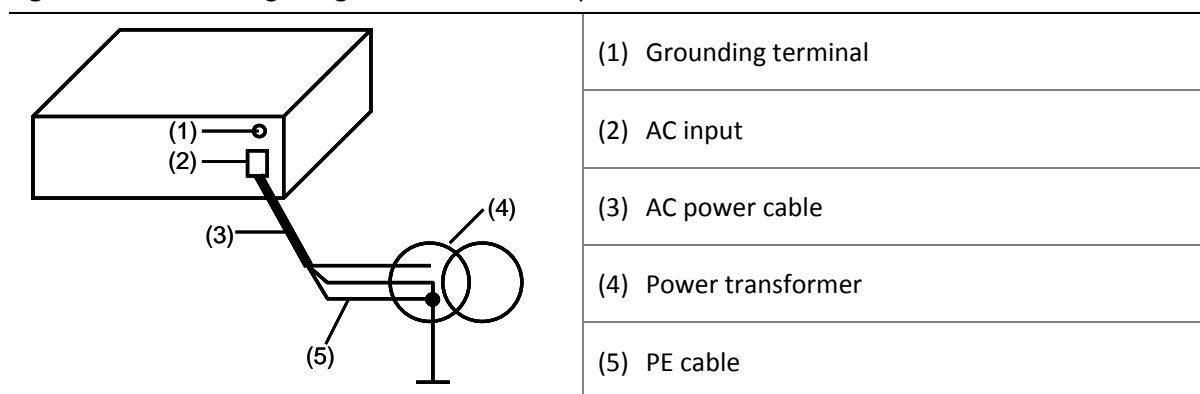
**Figure 2-15** Grounding using a buried grounding conductor



### Grounding through the protection earthing (PE) cable of AC power

If neither grounding bar nor mud ground is available, connect the grounding cable of the device to the PE cable in the manner as shown in [Figure 2-16](#). In addition, make sure that the PE cable of AC power is properly grounded in the power distribution room or on the AC power transformer side.

**Figure 2-16** Grounding using the PE cable of AC power



## Connecting the Power Cable



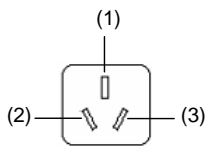
### CAUTION!

Before you connect the power cable, ensure that the power switch is OFF.

Unpack the AC power cable and connect it to power.

For the power socket, a three-wire single-phase power socket (as shown in [Figure 2-17](#)) or a multifunctional computer power socket is recommended. The neutral point of the power supply must be properly grounded. Generally, the neutral point of the power system for a building is grounded during cabling. Check that the power system of the building is properly grounded.

**Figure 2-17** AC power socket



(1) Neutral point

(2) Zero wire

(3) Live wire

## 3 Device Power On/Off

- To power on the device: Press the Power On/Off button after you have connected the device to power.



### CAUTION!

Before you connect the device to power, ensure that the grounding cable has been properly connected.



Power on/off

- To power off the device: Log in to the server through the SSH client and then run the **poweroff** command. You can also power off the device by pressing and holding the Power On/Off button for three seconds.



### CAUTION!

To power off the device by pressing and holding the Power On/Off button is not recommended.

# 4 Basic Configuration

---



## WARNING!

Configuration operations shall be performed by qualified personnel only. Any random configuration operation may cause severe system faults and loss of data.

---

## Configuration Tasks

**Table 4-1** Configuration task description

Configuration Task		Description
Configuration through Web	Logging in to the Web interface	Log in to the Web interface.
Configuration through command line interface	Viewing and modifying parameter settings	View and modify parameter settings.
	Performing service operations	View service status; start, stop and restart service.
	Viewing System Logs	View system logs.
	Viewing the system version	View system version information.

## Logging In to the Web Interface

After you have logged in to the Web interface, you can perform operations including setting the device ID and the VM server IP. For detailed operations, refer to the Online Help.



## NOTE!

Use the default administrator password “admin” when you access the Web interface for the first time.

---

### Logging in to the Web interface for DM8500-E

Perform these steps:

1. Open the Web browser on the client computer. In the address bar, enter the URL of the DM8500-E server in “http://DM8500-E server IP address:port number” format. For example, http://192.168.0.12:8080.
2. In the login dialog box, enter the user name and password as administrator, and then click **Ok**.

### Log in to the Web interface for BM

Perform these steps:

1. Open the Web browser on the client computer. In the address bar, enter the URL of the BM server in “http://BM server IP:port number” format. For example, http://192.168.0.12:8082.
2. In the login dialog box, enter the user name and password as administrator, and then click **Ok**.

## Configuration Through the Command Line Interface

### Viewing and Modifying Parameter Settings

#### Viewing parameter settings

Use the following commands to view the current parameter settings.

- View DM8500-E parameter settings:

```
[root@localhost ~]# dmcfgtool.sh -q
DeviceID=dmserver
RtspPort=554
ServerPort=5060
ServerIP=192.168.0.12
NatAddr=10.10.10.10
NatPort=1212
ServerID=iccsid
DBType=PostgreSQL
DBServerName=192.168.0.12:5432:imos
DBUserName=postgres
DBPassword=*****
```

- View BM parameter settings:

```
[root@localhost ~]# bmcfgtool.sh -q
DeviceID=bmserver
RtspPort=30554
SnmpPort=162
ServerPort=5060
ServerIP=192.168.0.12
ServerID=iccsid
NatAddr=
NatPort=
DBType=PostgreSQL
DBServerName=192.168.0.12:5432:imos
DBUserName=postgres
DBPassword=*****
```

#### Modifying parameter settings

Use the corresponding scripts to modify parameter settings when necessary, for example, when the network configuration has changed. The commands are described as follows. The boldface descriptions are explanatory notes.

- Change the DM8500-E device ID:

```
[root@localhost ~]# dmcfgtool.sh deviceid DM8500---DM8500-E is the new ID of the DM8500-E device.
```

- Change the BM device ID:

```
[root@localhost ~]# bmcfgtool.sh deviceid BM151--- BM151 is the new ID of the BM device.
```

- Change the IP address of the VM server:

```
[root@localhost ~]# dmcfgtool.sh serverip 192.168.254.155---192.168.254.155 is the new IP address of the VM server.
```



### NOTE!

You can also modify DM8500-E and BM device IDs and VM server IP through the Web interface. For detailed information, refer to the Online Help.

- Change Apache port numbers:



### NOTE !

You need to modify the port number only when the default port number is already being used.

Run the following command to modify the Apache port number of DM3.0:

```
[root@dm ~]# dmcfgtool.sh namehost 891--- 891 is the new port number of DM3.0.
```

Run the following command to modify the Apache port number of BM:

```
[root@dm ~]# bmcfgtool.sh namehost 892---892 is the new port number of BM.
```

For more commands to modify parameter settings, run the **dmcfgtool.sh -help** or **bmcfgtool.sh -help** script. After you have completed the modification, you need to run the **dmserver.sh restart** or **bmserver.sh restart** script to restart service and apply the new settings.

## Performing Service Operations

### Viewing service status

- View DM8500-E service status:

```
[root@localhost ~]# dmserver.sh status
```

```
Dmserver is running
```

```
serversnmpd is running
```

```
DiskReadOnlyCheck is running
```

```
Dmdaemon is running
```

- View BM service status:

```
[root@localhost ~]# bmserver.sh status
```

```
Bwserver is running
```

```
Bmserver is running
```

```
Bmdaemon is running
```

The service status is either **running** or **stopped**.

If the status of a process as shown above is displayed as **stopped**, you need to restart the service manually. For details, refer to [“Restarting services”](#).

If an executable file of the server is deleted, or if its executable permission is modified, a **“does not exist”** message will be displayed, indicating that the service does not exist. In this case, you need to reinstall the software.

## Starting services

The DM8500-E and BM services start automatically when the software installation is completed. To start the services manually, use the following commands:

```
[root@localhost ~]# bmserver.sh start
[root@localhost ~]# dmserver.sh start
```

## Stopping services

To stop the services manually, use the following commands:

```
[root@localhost ~]# bmserver.sh stop
[root@localhost ~]# dmserver.sh stop
```

## Restarting services

To restart the services, use the following commands:

```
[root@localhost ~]# bmserver.sh restart
[root@localhost ~]# dmserver.sh restart
```

## Viewing System Logs

System logs are stored in the **/var/log/imoslog** directory. To search the directory for a log file, use the **ls** command. To view the content of a log file, use the **tail** command. The following command output is only for your reference.

```
[root@localhost ~]# cd /var/log/imoslog
[root@localhost log]# ls
abc                imf_dmserver_0.log    piranha
abc.cap            imf_dmserver_1.log    pm
acpid              imf_ns_0.log          p.pcap
adapter_product00.log  imf_ns_1.log          ppp
adapter_product01.log  imf_SDK_0.log         prelink
...
[root@localhost ~]# tail adapter_product00.log
```

## Viewing the System Version

Use the following commands to view system version information. The following shows an example. The actual system version information may be different.

- View DM8500-E system version:

```
[root@localhost ~]# dmcfgttool.sh -v
Interior version : DM8500V300R001B03D019SP05
Exterior version : DM8500-IMOS110-B03D019SP05
BUILDTIME       : 2013-03-16 05:49
```

- View BM system version:

```
[root@localhost ~]# bmcfgttool.sh -v
Interior version : BM8500V300R001B03D019SP05
Exterior version : BM8500-IMOS110-B03D019SP05
BUILDTIME       : 2013-03-16 05:49
```

# 5 Software Upgrade, Uninstallation and Reinstallation

---



## WARNING!

Software upgrade, uninstallation and reinstallation must be performed only by qualified personnel. An inappropriate upgrade, uninstallation or reinstallation operation to the server may cause severe system faults and loss of data.

---

## Preparation

### Preinstallation Check

- Before you start an upgrade or a reinstallation, verify the network settings for the server, including the IP address, subnet mask, and gateway. If necessary, modify the network settings as required. For details, refer to [“Viewing and Modifying Parameter Settings”](#).
- The network connection between the server and the client computer is normal.
- The client computer is installed with the SSH client, and through which you have connected to the server. For the detailed procedure, refer to [“Logging In to the Server Through the SSH Client”](#). Do not exit the SSH client until you have completed the upgrade or installation; otherwise, the upgrade or installation will fail.



## NOTE!


When you log in to the DM8500-E server through the SSH client for the first time, use 192.168.0.12/24 as the IP address of GE port 1, 22 as the port number, and use root/uniview as the default username/password.


---

## Logging In to the Server Through the SSH Client

Icons as shown in [Table 5-1](#) appear on your desktop when the installation of the SSH Secure Shell Client software is completed.

**Table 5-1** SSH secure shell client shortcuts

Icon	Function
	For connection to the DM8500-E.

Icon	Function
	For uploading the software installation package to the DM8500-E.


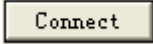
Perform the following steps to log in to the DM8500-E server through the SSH client:



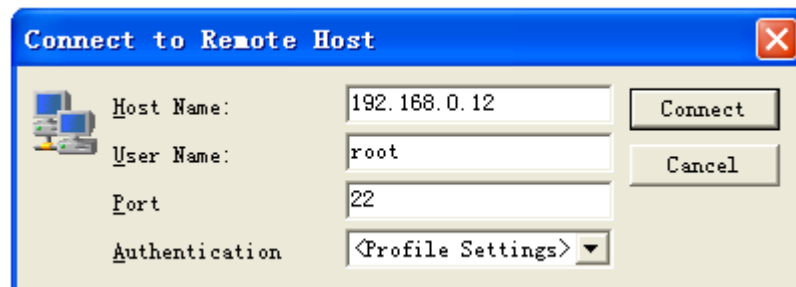
1. Double-click . The **SSH Secure Shell** window as shown in [Figure 5-1](#) is displayed.


**Figure 5-1** SSH Secure Shell window



2. Click . In the **Connect to Remote Host** dialog box, type the IP address of the DM8500-E as the host name, type **root** as the user name, keep the default settings for the rest parameters as shown in [Figure 5-2](#), and then click .

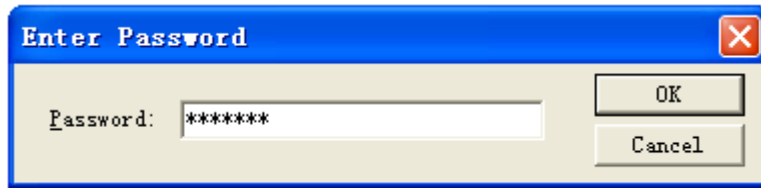
**Figure 5-2** Connect to Remote Host dialog box



3. When the **Enter Password** dialog box as shown in [Figure 5-3](#) appears, type **uniview** as the password, and then click  to log in to the server.



**Figure 5-3** Enter Password dialog box



## Upgrading the Software


Strictly follow these steps to ensure a successful software upgrade:

1. Copy and extract the software installation package.
2. Run the upgrade script.

### Copying and Extracting the Software Package

Use the SSH client to copy the software package of the new version to a working directory (take **/root** as an example) in the current server operating system, and then extract the package.

The detailed steps are as follows:

1. Log in to the server by using the SSH client and then click . A window appears.
2. In the left pane of the window, select the directory where the installation package (for example, DM8500-E) is located and then drag the package to the **/root** directory in the right pane. The package is copied to the server, as shown in [Figure 5-4](#).



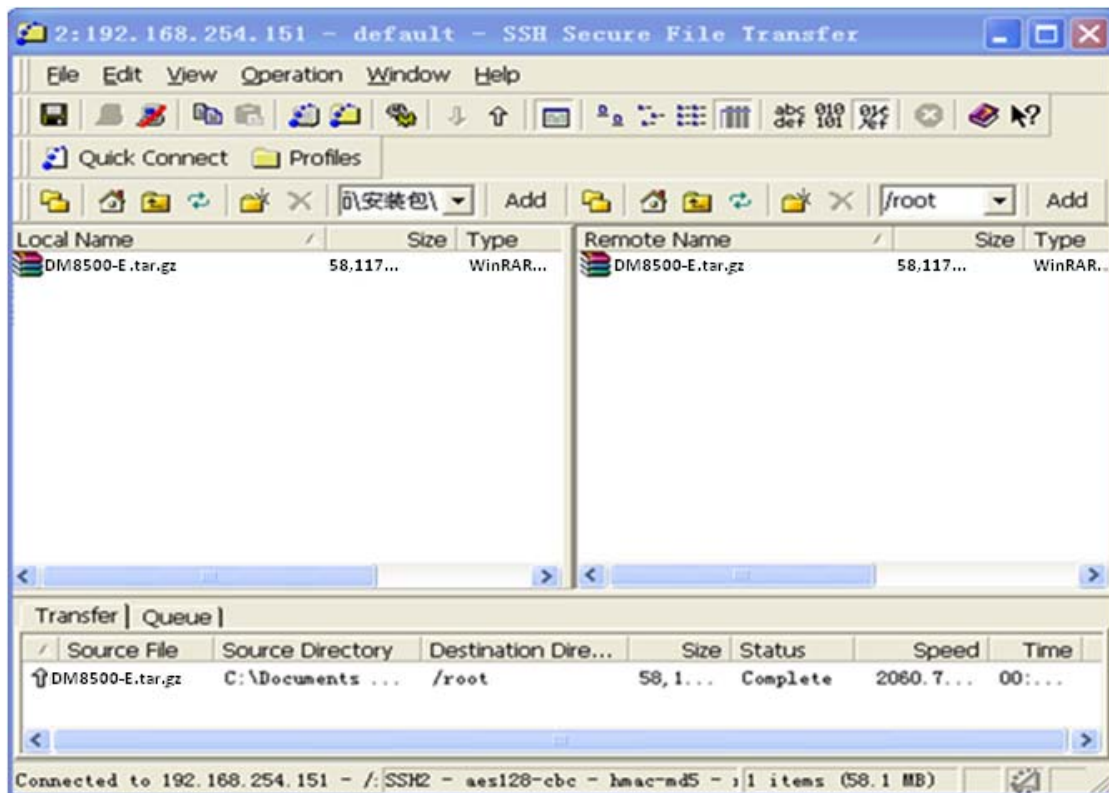
---

#### **NOTE!**

The working directory must be named in English.

---

**Figure 5-4** Copying the package to the server



3. Access the directory containing the package and then use the **tar** command to extract it.

```
[root@localhost ~]# tar zxvf DM8500-E.tar.gz
```

When the package is extracted, two directories are generated, containing upgrade, uninstallation and reinstallation scripts for DM8500-E and BM respectively.

## Running the Upgrade Scripts

1. Access the BM directory and run the **sh bmupdate.sh** script by using the following commands, and then follow system prompts to complete the upgrade.

```
[root@localhost ~]# cd bm
```

```
[root@localhost bm]# sh bmupdate.sh
```

2. Access the DM8500-E directory and run the **sh dmupdate.sh** script by using the following commands, and then follow system prompts to complete the upgrade.

```
[root@localhost ~]# cd DM8500-E
```

```
[root@localhost DM8500-E]# sh dmupdate.sh
```

## Uninstalling the Software



### **WARNING!**

Uninstallation will delete all the related data, so back up all the data before you start.

To uninstall the software, perform these steps:

1. Log in to the DM8500-E server through the SSH client.
2. Access the BM directory and run the **sh bmuninstall.sh** script by using the following commands, and then follow system prompts to complete the uninstallation.

```
[root@localhost ~]# cd BM
[root@localhost BM]# sh bmuninstall.sh
```

3. Access the DM8500-E directory and then run the **sh dmuninstall.sh** script by using the following commands, and then follow system prompts to complete the uninstallation.

```
[root@localhost ~]# cd DM8500-E
[root@localhost DM8500-E]# sh dmuninstall.sh
```

## Reinstalling the Software

By default the DM8500-E is intended for stand-alone installation. This procedure takes stand-alone installation as an example. For information about high-availability installation, contact technical support.



### WARNING!

Reinstalling the software will uninstall the current version and delete all the related data, so back up all the data before you start.

To reinstall the software, perform these steps:

1. Copy the installation package to a working directory in the current server operating system and then extract the package. For details, refer to [“Copying and Extracting the Software Package”](#).
2. Access the **DM8500-E** directory and run the **source dminstall.sh** script by using the following commands. The following command output is for your reference and may be different in the actual installation process. The boldface descriptions are explanatory notes.

```
[root@localhost ~]# cd DM8500-E
[root@localhost DM8500-E]# source dminstall.sh
2013-03-15 15:42:09 : Do not close the terminal during the installation; otherwise, unknown
error might occur.
DM8500-E installation begins...
Please choose the language of DM8500-E (default 0.Chinese):---Choose a language for the version.
0.Chinese
1.English
Please input your choice:0
What version of DM8500-E do you want to install[default:1. stand-alone]:---Choose the stand-alone
installation mode.
1. stand-alone
2. high ability (HA)
Please input your choice:1
Please input DM8500-E device ID[default:msserver]:---Set the DM8500-E device ID, which must be unique in
the network. To use the default, press Enter.
```

```
Use default DeviceID:msserver
```

Please input Video Manager server port[default:5060]:**---Set the VM server port. To use the default, press Enter.**

Use default Server Port:5060

Please input SNMP port[default:162]: **---Set the SNMP server port. To use the default, press Enter.**

Use default Snmp Port:162

Please input Video Manager server IP address[such as 192.168.0.11]:**---Set the VM server IP.**

192.168.254.152

Please input database server IP address[such as 192.168.0.11]:**---Set the DB server IP.**

192.168.254.152

Route initialization succeeded

Route initialization succeeded!

Begin to install DM8500-E server ...

Begin to install rpm pdt\_imos ...

Install rpm pdt\_imos finished...

Install rpm pdt\_imos succeeded

Begin to install rpm DM8500-E ...

Install rpm DM8500-E finished...

Install rpm DM8500-E succeeded

Install succeeded

Begin to start DM8500-E server ...

Starting MSSERVER services: starting msserver

start ok 0

CImfLogTask: logNumber = IMFMaxLogNumber 2

CImfLogTask: logSize = IMFMaxLogSize 1048576

CImfLogTask: logPath = IMFLogPath /var/log/imoslog

Start msserver succeeded

/usr/local/mswww/apache/htdocs/./bin/apachectl start: httpd started

Start msdaemon succeeded

Start servers succeeded

Install DM8500-E succeeded

The DM8500-E server automatically restarts when the installation is completed. You can use the **dmserver.sh status** script to view the service status. For details, refer to "[Performing Service Operations](#)".

3. Access the **BM** directory and run the **bminstall.sh** script by using the following commands. The following command output is for your reference and may be different in the actual installation process. The boldface descriptions are explanatory notes.

```
[root@localhost ~]# cd BM
```

```
[root@localhost BM]# ./bminstall.sh
```

```
2011-04-30 16:09:30 : Do not close the terminal during the installation; otherwise, unknown error might occur.
```

```
BM installation begins...
```

```
Please choose the language of BM (default 0.Chinese): --- Choose a language for the version.
```

```
0.Chinese
```

```

1.English
Please input you choice:0
What version of BM do you want to install[default:1. stand-alone]: --- Choose the stand-alone
installation mode.
1. stand-alone
2. high ability (HA)
Please input your choice: ---To use the default (1), press Enter.
Use default MODE:1. stand-alone
Please input BM device ID[default:bmserver]: --- Set the DM8500-E device ID, which must be unique in the
network. To use the default, press Enter.
Use default DeviceID:bmserver
Please input Video Manager server port[default:5060]
Use default Server Port:5060
Please input RTSP port[default:30554]:
Use default Rtsp Port:30554
Please input SNMP port[default:162]:
Use default Snmp Port:162
Please input Video Manager server IP address[such as 192.168.0.11]:192.168.254.152
Please input database server IP address[such as 192.168.0.11]:192.168.254.152
Install rpm BM finished...
Install rpm BM succeeded
Install succeeded
Begin to start BM server ...
.....
The BM service restarts automatically when the installation is completed. You can use the
bmserver.sh status script to view the service status. For details, refer to "Performing Service
Operations".

```

## 6 FAQs

---

### How to Replace a Hard Disk

The hard disk slots are inside the device, so you need to remove the front panel and the dust cover first. For details, refer to "[Removing the Front Panel](#)".

#### Preinstallation

- Carefully read the instructions in the hard disk package.
- Use an antistatic wrist strap or a pair of antistatic gloves.

## Installation Procedure

### Removing the hard disk

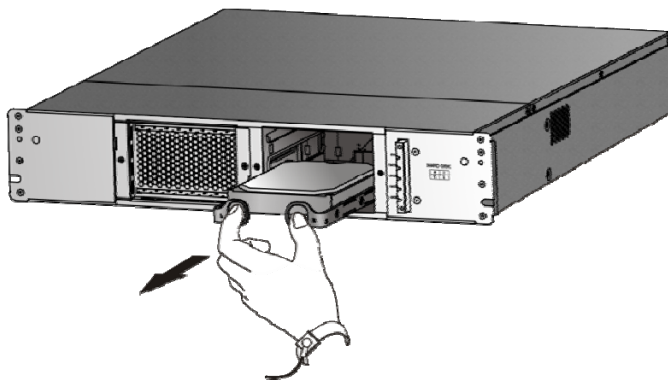
Hold the left and right handle bars in the manner as shown in [Figure 6-1](#) and then pull the handle bars smoothly to disengage the hard disk from the backplane. Wait for at least 30 seconds till the hard disk stops spinning and then fully remove the hard disk from the slot.



### CAUTION!

Use your strength appropriately to avoid damaging the handle bars.

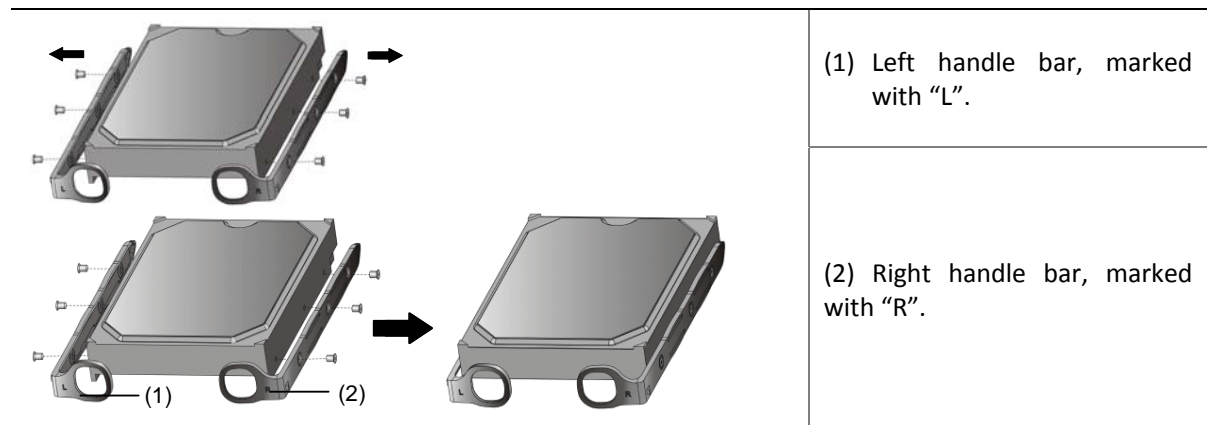
**Figure 6-1** Removing the hard disk



### Removing and installing the handle bars

Remove the handle bars from the faulty hard disk and then install them on the new hard disk. Make sure that you install the left and right handle bars properly.

**Figure 6-2** Removing and installing the handle bars



### Installing the hard disk

For details, refer to "[Hardware Installation](#)".

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