

Enlight Corporation

EN-8950 File Server Case USER MANUAL

Version 1.3

Apr. 25, 99

P/N: 3635719

Limited Warranty

Enlight Corporation makes the warrants of this EN-8950 File Server case and its associated system components (called EN-8950 below), in accordance with the terms defined below, that it will either repair or replace this EN-8950 if it is proved that it is defective in its design, material, and/or workmanship in the course of its normal use within one year from the Buyer's date of purchase from an EN-8950 authorized dealer.

The terms of this Limited Warranty is defined as follows:

- The normal and intended use of EN-8950 should be in accordance with the functional, environmental, and operational standards either published by Enlight Corporation or generally accepted in the industry.
- Enlight Corporation will not be liable to any EN-8950 which has been altered or modified, either intentionally or unintentionally, during its normal use.
- Enlight Corporation will not be liable to data loss or data contained in any EN-8950 placed in its possession during its normal use.
- Enlight Corporation shall have no obligation to malfunctions of any EN-8950 caused by defects other than that it is proved to be defective in its design, material, and/or workmanship in the course of its normal use within the warranty period.

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Introduction

The Enlight's EN-8950 chassis is an all-new concept of File Server case, which combines affordability, reliability, and expendability to maximize performance and security for users.

The EN-8950's user-friendly design makes it easy to access, upgrade and maintain. It can also be placed into a 19" rack mount for industrial purpose.

This chassis is solid and reliable since it is made of high quality steel. It completely protects all components inside the chassis. The excellent ventilation keeps the temperature at proper degree. It's a perfect File Server case for small size companies.

Specification:

Model	EN-8950
Mainboard Size	Full AT Full ATX
Cooling Fans	80mm * 2
Drive Bays	1 x 3.5" drive bay 9 x 5.25" drive bays
Security	Mechanical Locks (Front Bezel) Padlock Loop (Rear of Side Panel) Intrusion Detector (Front and Side Panel)
Power Supply	Single: 300W Power Supply Module: 230W Power Supply * 3
Dimension (W x H x D)	219mm * 484mm * 649mm (8.62in. * 19.1in. * 25.6in.)
Weight	16kg (35.27 lbs.)

Different Angle of Views (1)



Front View (Door Closed)
Fig. 1.1



Front View (Door Opened-Left)
Fig. 1.2



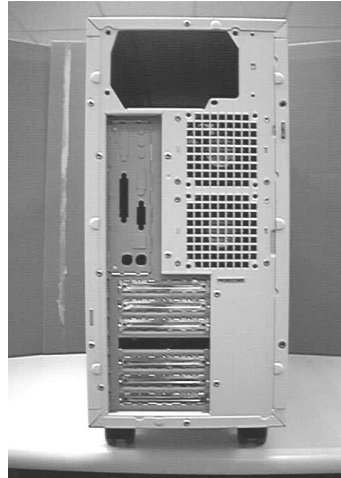
Front View (Door opened-Right)
Fig. 1.3
Different Angle of Views (2)



Side View
Fig. 1.4



Front View (Without Front Bezel)
Fig. 1.5



Rear View
Fig. 1.6

1. Feature

The EN-8950 is designed to maximize serviceability. Users can easily access, upgrade and maintain the system. The followings are the detailed descriptions of the features.

2.1 Front Bezel

The front bezel is designed as a removable door. Once the front bezel is opened, users can access all drives directly without taking off any other components. Another unique design of this front bezel is that it can be opened from either right or left side based on users' convenient. There is also a lock on each side of the front bezel, which prevents any unauthorized access. When both locks are released, the bezel can be removed.

The power switch and the reset button are blocked and untouchable when the front bezel is closed. Any intentionally or accidentally shutting down by users can be prevented, which intensify the security of the File Server.

There is a clear vertical oval-shape plastic plate on the top-left corner of the front bezel. Users can read the LEDs behind the plastic plate for indication of status even the front bezel is closed.

The front bezel also has an IrDA receiver for wireless devices, such as keyboard, mouse...etc.

The middle part of the front bezel can be removed and replaced with a clear plastic cover when an optional LCD module is installed.

2.2 I/O Panel

As other chassis, all I/O accesses go through from the rear side of the EN-8950. The metal I/O plate is removable, which can be changed based on the form factors of the motherboards.

2.3 Cooling System

The EN-8950 comes with two 80mm powerful cooling fans. They are located beneath the power supply on the back panel of the chassis. The air is pulled from in front of the chassis, then flows across the boards and out the back. These two cooling fans effectively lower the temperature inside the chassis. RPM detection is also available for the cooling fans. Whenever any of which fails, users will be informed by the system right away. These two cooling fans can be easily exchanged. However, an optional fan module is also available for extra cooling demands.

2.4 Security

The EN-8950 is protected by both mechanical lock and electrical detector. There is a padlock loop on the rear of right side panel. Which is used to prevent any unauthorized access to components inside the chassis. The two locks on the front bezel also prohibit access to CD-ROMs or hard drives. By the way, two electrical intrusion detectors will alarm whenever the front door or the side panel is opened. The overall security system perfectly protects the File Server.

2.5 Power Supply

The EN-8950 comes with a reliable, high performance and high efficiency 300-Watt single power supply or a 460-Watt power supply module (230W 2+1). It provides stable power; even if the system is fully loaded.

2.6 Drive Bays

This File Server case provides ten drive bays, which consist of one 3.5" floppy drive bay and nine 5.25" drive bays. The 3.5" floppy drive bay is vertically sited on the middle-left of the front panel. The ten 5.25" drive bays across the front panel from top to bottom.

2.7 Modular Design

The most advanced design of this chassis is modularization of its drive bays. Which greatly increases the flexibility of this chassis. Users can choose whatever modules they need to build up a File Server system that meets their requirements.

2.8 Fitting of The 19" Rack Mount

Even though the EN-8950 is designed as an entry-level File Server, it's also designed to be flexible and expendable. Since this chassis is a standard 19" file Server case, it can be placed into a 19" rack mount easily. This makes the EN-8950 also an industrial level of File Server case.

2. Operation

EN-8950 is designed to maximize accessibility. Users can easily access, upgrade and maintain the file server system. By using a “Phillips” (cross-head) screw driver, users can install, upgrade or remove any components or parts.

Note:

Some components described below are optional, which need to be purchased separately.

Caution:

For your safety, please accomplish the following before any operations.

1. **Turn off** and **unplug the AC power** of the system.
2. **Disconnect** all peripheral devices and communication lines that are connected to system.

3.1 The Front Door

As mentioned earlier, the front bezel is a removable door. There are two locks on the bezel, one on left, and the other on right. Please read the following for operations of the front bezel.

3.1.1 Opening/Removing the Front Door

1. To open the door from left side, please free the lock on the left side of bezel. Please refer to Fig. 1.2.
2. To open the door from right side, please free the lock on the right side of bezel. Please refer to Fig.1.3.
3. To remove the front bezel, please free both locks.

3.1.2 Closing/Placing Back the Front Door

1. To close the door, please fasten either right or left lock. Please refer to Fig. 1.1.
2. To place the front door back, please join one side of the front door to the axle on the front panel and fasten its corresponding lock; then join the other side and fasten its lock.

3.2 The Side Panel

Beside drives or modules, the operations of all other components need to go through from the side. Please refer to the next procedures for taking

off or placing back the side panel.

3.2.1 Taking off the Side Panel

1. Detach all connected cables.
2. Unlock and take off the padlock from lock loop if there is one.
3. Free the screws on the rear of left side panel.
4. Shift the side panel to the direction of back panel about 10mm, and take it off.

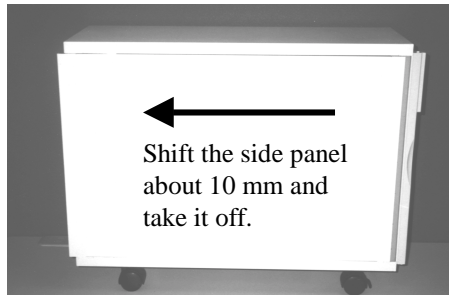


Fig. 3.2.1

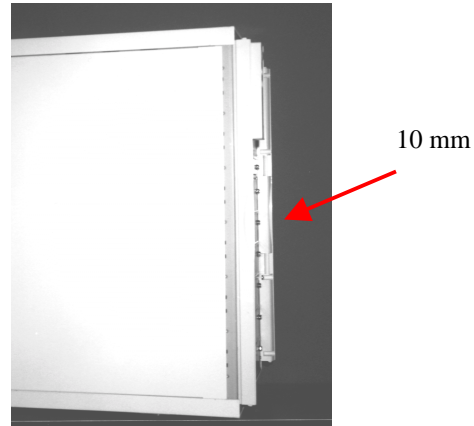


Fig. 3.2.2

3.2.2 Placing Back the Side Panel

1. Position the side panel to the chassis, and ensure the tabs on the side panel align with slots of the chassis.
2. Slide the side panel toward the front panel of the chassis until the tabs firmly engage with the chassis.
3. Tighten the side panel with screws.

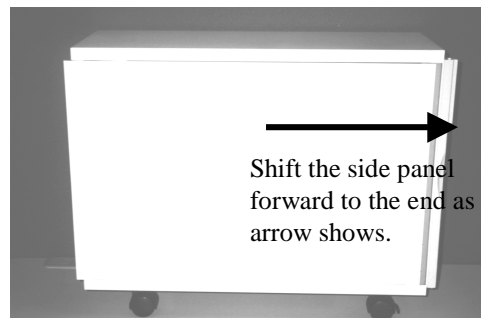


Fig. 3.2.3

3.3 The Cooling Fans

The two cooling fans on the back panel are hot swappable. They can be easily exchanged without any hassle. Each cooling fan is held on a fan base. The following steps show you the way of exchanging a cooling fan.

3.3.1 Detaching a Cooling Fan

1. Take off the side panel.
2. Disconnect the connector of the fan.
3. Hold the cooling fan that you want to change.
4. Pull the tip of the hook out by using a finger.
5. Detach the fan from base.

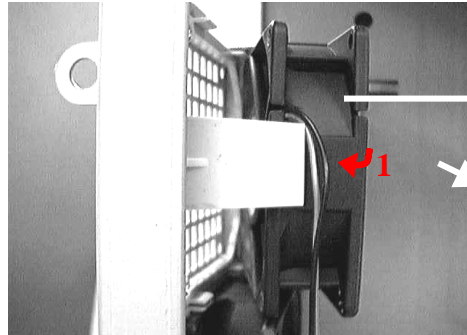


Fig.3.3.1 Taking off cooling fan

3.3.2 Installing a Cooling Fan

1. Take off the side panel.
2. Place the cooling fan onto the base in 45-degree angle. Make sure the inner edge of the fan gets into the notches of the base.
3. Push the fan toward the direction of back panel until the hook of the base fastens the fan.

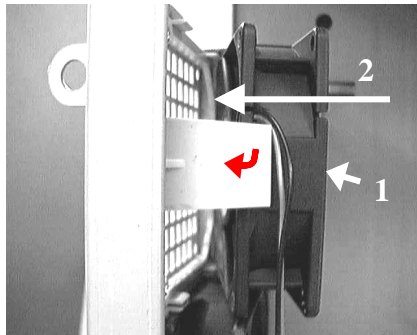


Fig. 3.3.2 Installing cooling fan



Fig. 3.3.3 Fan installed

3.4 The 3.5" Drive

Installing or extracting the 3.5" drive is an easy task. Please follow the next steps for operations.

3.4.1 Installing the 3.5" Drive

1. Open the front bezel from left side. However, taking off the front bezel is recommended.
2. Take off the side panel.
3. Loosen the screws of the stand on the 3.5" drive bay, which is vertically located on the left side of front panel. Take the stand off from back of the front panel.
4. Place the 3.5" drive into the groove of the stand. Tighten the 3.5" drive with four 3mm screws. Please refer to the following photo for the proper holes to fasten screws.
5. Place the whole set back to the drive bay and tighten it with screws.
6. Connect all necessary cables.
7. Place the side panel back.
8. Close the front door, or place the bezel back.

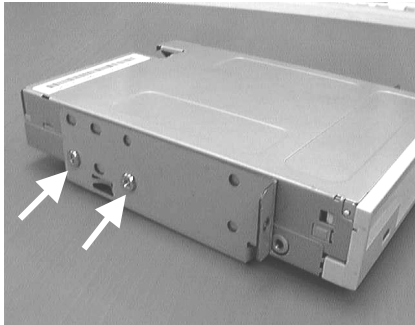


Fig. 3.4.1 Tightening screws

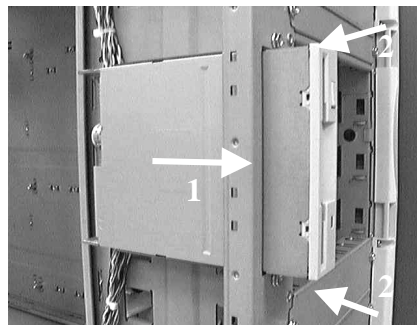


Fig. 3.4.2 Installing 3.5" drive

3.4.2 Extracting the 3.5" Drive

1. Open the front bezel from left side. However, taking off the front bezel is recommended.
2. Take off the left side panel.
3. Disconnect all cables.
4. Free two screws on the front panel and take off the drive set
5. Free four screws on the side of drive stand and take the 3.5" drive out.

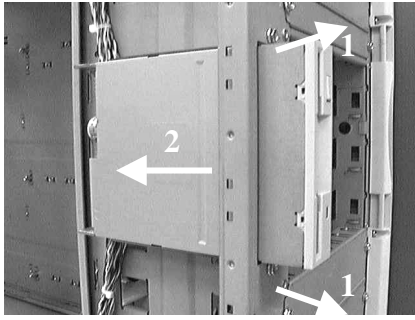


Fig. 3.4.3 Taking off 3.5" drive

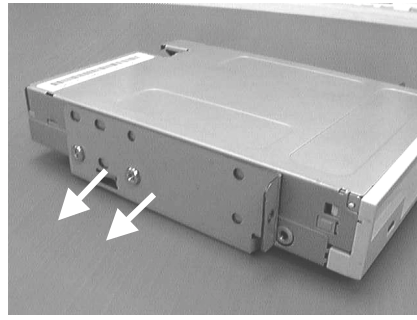


Fig. 3.4.4 Taking off screws

3.5 The 5.25" Drives

Installing or withdrawing a 5.25" drive can be done in couple minutes. The following are the steps of manipulation.

3.5.1 Installing a 5.25" Drive

1. Open the front bezel from either right or left side. However, taking off the front bezel is recommended.
2. Take off the side panel.
3. Remove the bracket of the bay where you want to place the 5.25" drive in.
4. Get two slide rails from accessory pack. Attach one rail on each side of 5.25" drive, and tighten both rails with 3mm screws.
5. Place the 5.25" drive all the way to the end into the drive bay where the bracket is taken off.
6. Connect all necessary cables.
7. Place the side panel back to case.
8. Close the front door, or place the bezel back.

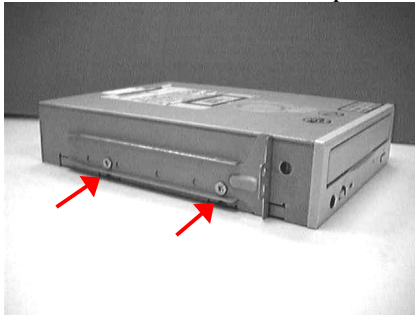


Fig. 3.5.1 Installing slide rails

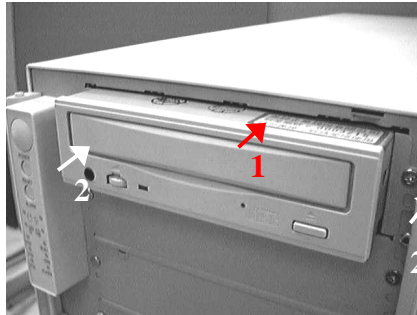


Fig. 3.5.2 Installing 5.25" drive

3.5.2 Withdrawing a 5.25" Drive

1. Open the front bezel from either right or left side. However, taking off the front bezel is recommended.
2. Take off the side panel.
3. Disconnect all cables.
4. Press the tabs of the slide rails on the front panel and pull the drive out of the chassis
5. Free all four screws to release slide rails.



Fig. 3.5.3 Withdrawing 5.25" drive rails



Fig. 3.5.4 Taking off slide rails

3.6 The Modules

The installation or removing of a module is as easy as the way of executing to a 5.25" drive. Please refer to the followings.

3.6.1 Installing a Module

1. Open the front bezel from either right or left side. As mention earlier, remove the front bezel is recommended.
2. Take off the side panel.
3. Please measure the size of the module, and check how many drive bays will be occupied.
4. Remove the bracket(s) of the drive bay(s) where you want to place the module in. (Note: RAID module is assigned from bay 4 to bay 6).
5. Get slide rails from accessory pack. Attach rails on each side of module and tighten all rails. In order to make sure the module is sited firmly in chassis, please attach proper numbers of slide rails to each side of the module.
6. Place the module all the way to the end into drive bay(s) where you

- 7. Connect all necessary cables.
- 8. Place the side panel back to chassis.
- 9. Close the door, or place the bezel back.

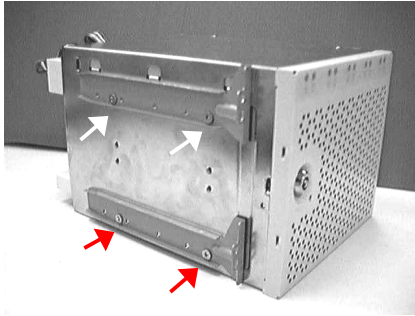


Fig. 3.6.1 Installing slide rails

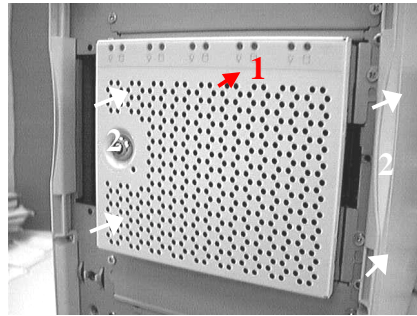


Fig. 3.6.2 Installing module

3.6.2 Removing a Module

1. Open the front bezel from either right or left side. However, remove the front bezel is recommended.
2. Take off the side panel.
3. Disconnect all cables.
4. Press the tabs of the slide rails on the front panel.
5. Pull the module out of chassis.
6. Free all screws and release slide rails.

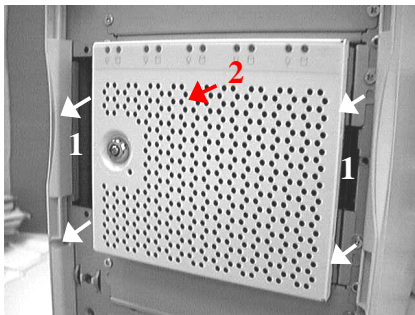


Fig. 3.6.3 Removing module

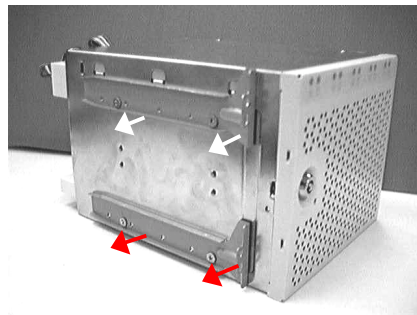
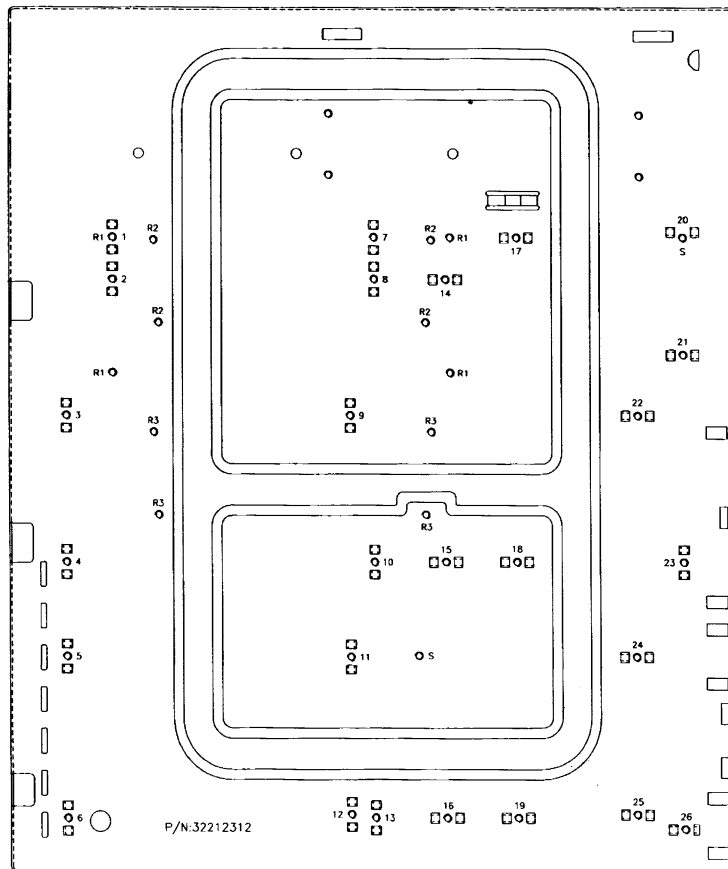


Fig. 3.6.4 Taking off slide rails

3.7 Installation of Server Board

1. Free screws and take off the side panel.
2. Clip the I/O shell that is included in server board onto the big square hole to protect I/O ports. Please ensure the shell is in correct orientation.
3. Place the server board on the mounting board, and align it to proper position.
4. Adjust standoffs to coincide the mounting holes of server board. Please check next page for reference.
5. Tighten the server board with screws.



Holes for various form factors of Server Boards

Baby AT: 3, 4, 5, 6, 9, 10, 13, 22, 24, 25

Mini ATX: 2, 4, 5, 6, 8, 10, 13, 14, 15, 16

ATX: 1, 4, 5, 6, 7, 10, 13, 17, 18, 19

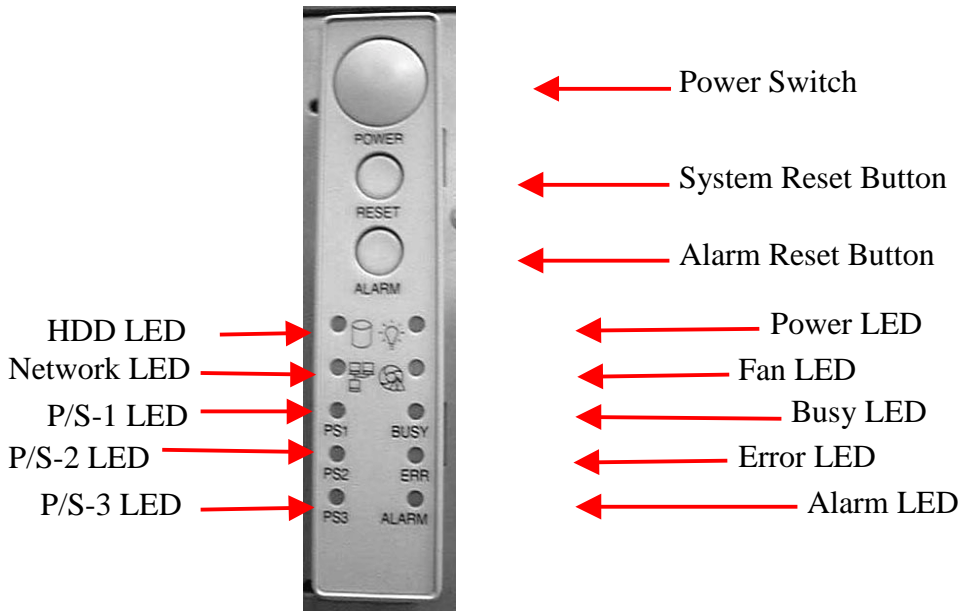
Full ATX: 1, 4, 5, 6, 7, 10, 13, 17, 18, 19, 20, 22, 23, 26

S.S.I: 1, 4, 5, 6, 7, 13, 17, 18, 19, 23, 26, S

Retention: R1, R2, R3

3.8 Connection of LED Connectors

The EN-8950 equips with 10 LEDs for environmental indication.



Power Switch: A two-hole connector. Plug the connector onto motherboard where marks “PWR SW”.

Reset Button: A two-hole connector. Plug the connector onto motherboard where marks “Reset”.

Alarm Reset Button: A two-hole connector. Used for resetting alarm. Plug the connector onto power module where marks “Reset” if this output is available.

HDD LED: A two-hole connector. Used for indication of HDD status. Plug the connector onto motherboard where

marks “HDD LED”.

Network LED: A two-hole connector. Used for indication of network status. Plug the connector onto motherboard or network card where marks “Network LED” if this LED output is available.

P/S-1 to P/S-3 and Alarm LEDs: An eight-hole connector. Used for indication of power supplies status. Plug the connector onto power module where marks “LED” if this output is available.

Power LED: A three-hole connector. Used for indication of power status. Plug the connector onto motherboard where marks “Power LED”.

Fan LED: A two-hole connector. Used for indication of fan status. Plug the connector onto fan module where marks “Fan LED” if this output is available.

Busy LED: A two-hole connector. Used for busy indication of a particular system. Plug the connector onto the system where marks “Busy LED” if this output is available.

Error LED: A two-hole connector. Used for error indication of a particular system. Plug the connector onto the system where marks “Error LED” if this output is available.

3.9 Engaging of 19” Rack Mount

Note:

For users who will integrate the EN-8950 into rack mount have to notify our dealer when purchasing.

EN-8950 is a great solution for users who need a File Server case for industrial purpose. This case can be easily positioned into a standard 19” rack mount. Please follow the next steps for instruction.

1. Turn the EN-8950 Server case 90 degrees (clockwise recommended) to become a desktop-like case.
2. Take off all four wheels if they are still on case.
3. Attach the slide rails from 19” rack mount to right (top) and left (bottom) covers of the EN-8950. Screw them tightly.
4. Place the EN-8950 into rack mount.

If you still have questions regarding our product, please contact our authorized dealers for assistant.

P.S. All specifications subject to change without prior notice.