

NAS System

User's Manual

Revision 3.0

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Preface

About this manual

This manual provides information regarding the quick installation and hardware features of the **NAS system**. Information contained in the manual has been reviewed for accuracy, but not for product warranty because of the various environment/OS/settings. Information and specifications will be changed without further notice.

This manual uses section numbering for every topics being discussed for easy and convenient way of finding information in accordance with the user's needs. The following icons are being used for some details and information to be considered in going through with this manual:



NOTES:

These are notes that contain useful information and tips that the user must give attention to in going through with the subsystem operation.



IMPORTANT!

These are the important information that the user must remember.



WARNING!

These are the warnings that the user must follow to avoid unnecessary errors and bodily injury during hardware and software operation of the subsystem.



CAUTION:

These are the cautions that user must be aware to prevent damage to the equipment and its components.

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Changes

The material in this document is for information only and is subject to change without notice.

Before You Begin

Before going through with this manual, you should read and focus to the following safety guidelines. Notes about the subsystem product packaging and delivery are also included.

Safety Guidelines

To provide reasonable protection against any harm on the part of the user and to obtain maximum performance, user is advised to be aware of the following safety guidelines particularly in handling hardware components:

Upon receiving of the product:

- ❖ Place the product in its proper location.
- ❖ To avoid unnecessary dropping out, make sure that somebody is around for immediate assistance.
- ❖ It should be handled with care to avoid dropping that may cause damage to the product. Always use the correct lifting procedures.

Upon installing of the product:

- ❖ Ambient temperature is very important for the installation site. It must not exceed 30°C. Due to seasonal climate changes; regulate the installation site temperature making it not to exceed the allowed ambient temperature.
- ❖ Before plugging-in any power cords, cables and connectors, make sure that the power switches are turned off. Disconnect first any power connection if the power supply module is being removed from the enclosure.
- ❖ Outlets must be accessible to the equipment.
- ❖ All external connections should be made using shielded cables and as much as possible should not be performed by bare hand. Using anti-static hand gloves is recommended.
- ❖ In installing components, secure all the mounting screws and locks. Make sure that all screws are fully tightened. Follow correctly all the listed procedures in this manual for reliable performance.

Packaging, Shipment and Delivery

- ❖ Before removing the subsystem from the shipping carton, you should visually inspect the physical condition of the shipping carton.
- ❖ Unpack the subsystem and verify that the contents of the shipping carton are all there and in good condition.
- ❖ Exterior damage to the shipping carton may indicate that the contents of the carton are damaged.
- ❖ If any damage is found, do not remove the components; contact the dealer where you purchased the subsystem for further instructions.

Chapter 1 Introduction



The NAS System

1.1 Key Features

- Supports up to five (5) hot-swappable 6Gb/s SATA hard drives
- Supports RAID levels RAID 0, 1, 5, 6, 10 and Linear(JBOD)
- Support Smart-functional LCD panel
- Support drive hot spare and automatic hot rebuild
- Centralization of Data and Storage Management
- Real-time drive activity and status indicators
- Environmental monitoring unit
- Allow online capacity expansion within the enclosure
- Locally audible event notification alarm

1.2 Technical Specifications

Hardware Platform
Intel Celeron 3.4GHz CPU or above
Cache memory : 8GB DDR4 SDRAM up to 32GB
Four USB3.0 ports
Two Gigabit Ethernet ports
Support RAID level: RAID 0, 1, 5, 6, 10 and Linear(JBOD)
Up to Five(5) 2.5"/3.5" hot-swappable 6Gb/s SATA hard drives
Real-time drive activity and status indicators
Environmental monitoring unit
300W power supply with PFC (80 plus)
Support drive hot spare and automatic hot rebuild
Allow online capacity expansion within the enclosure
Locally audible event notification alarm
Power requirements
AC 100V ~ 240V Full range
4.5A~2.5A, 50~60Hz
Environmental
Relative humidity : 10%~85% Non-condensing
Operating temp : 10°C~40°C(50°F~104°F)
Physical Dimension
261(H) x 180(W) x 390(D)mm

Specifications are subject to change without notice.




Chapter 2 Installation

2.1 Packaging, Shipment and Delivery

- ❖ Before removing the system from the shipping carton, you should visually inspect the physical condition of the shipping carton.
- ❖ Unpack the system and verify that the contents of the shipping carton are all there and in good condition.
- ❖ Exterior damage to the shipping carton may indicate that the contents of the carton are damaged.
- ❖ If any damage is found, do not remove the components; contact the dealer where you purchased the system for further instructions.

2.2 Unpacking the NAS System

The package contains the following items:

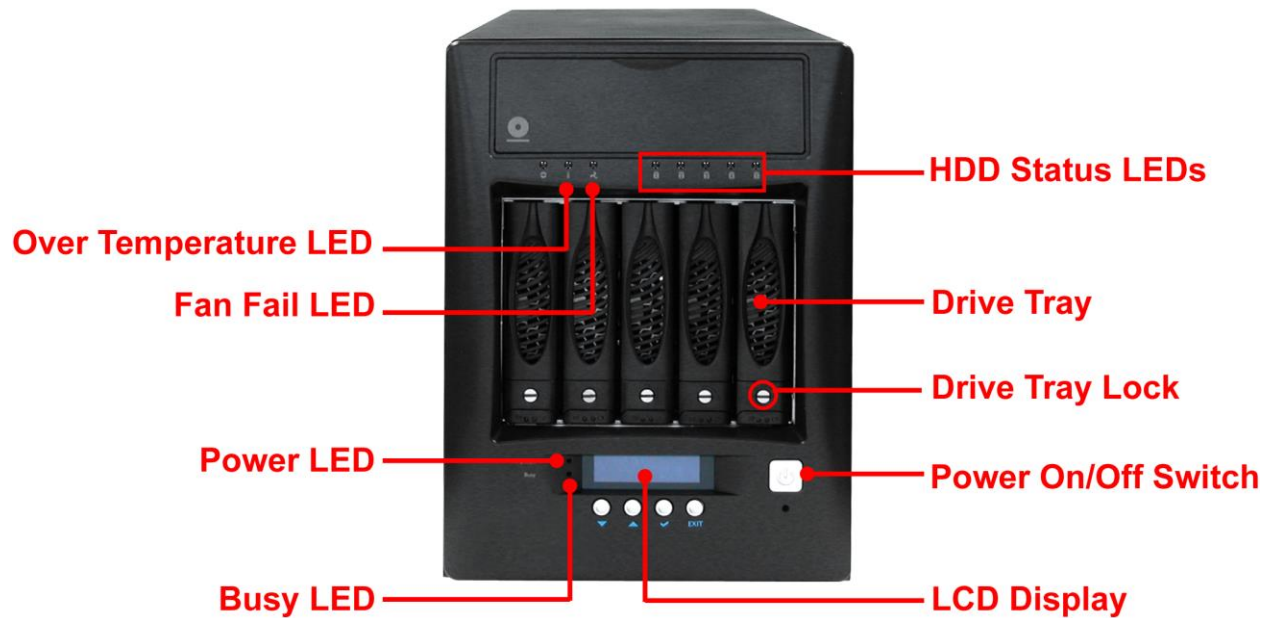
	NAS System Unit
	One (1) power cord
	Two (2) Ethernet LAN cables

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

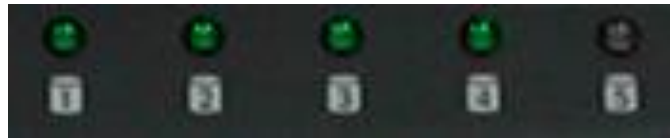
2.3 Identifying Parts of the NAS System

The illustrations below identify the various parts of the NAS system.

2.3.1 Front View

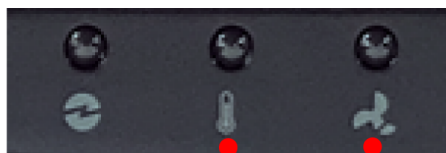


2.3.2 HDD Status LEDs





Green LED indicates power is on and the hard disk drive status is good for this slot.
Blinking Orange and Green LED indicates the hard disk drive is in rebuilding state.

2.3.3 Environmental Status LEDs

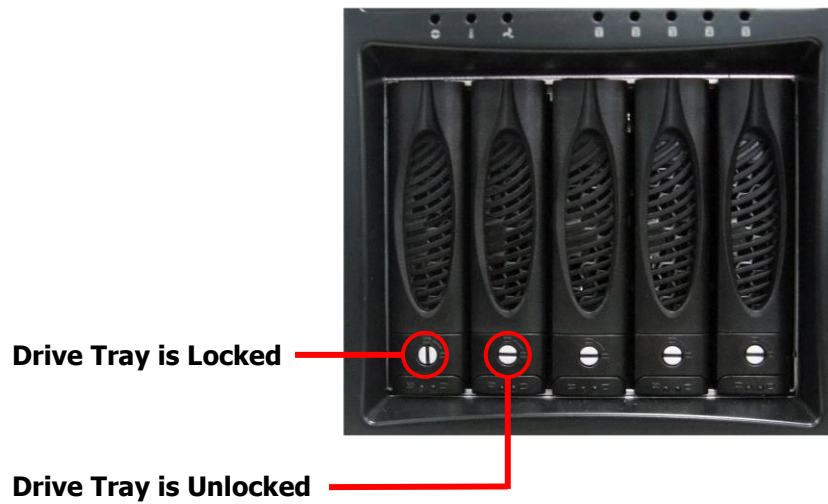


Over Temperature LED — **Fan Fail LED**

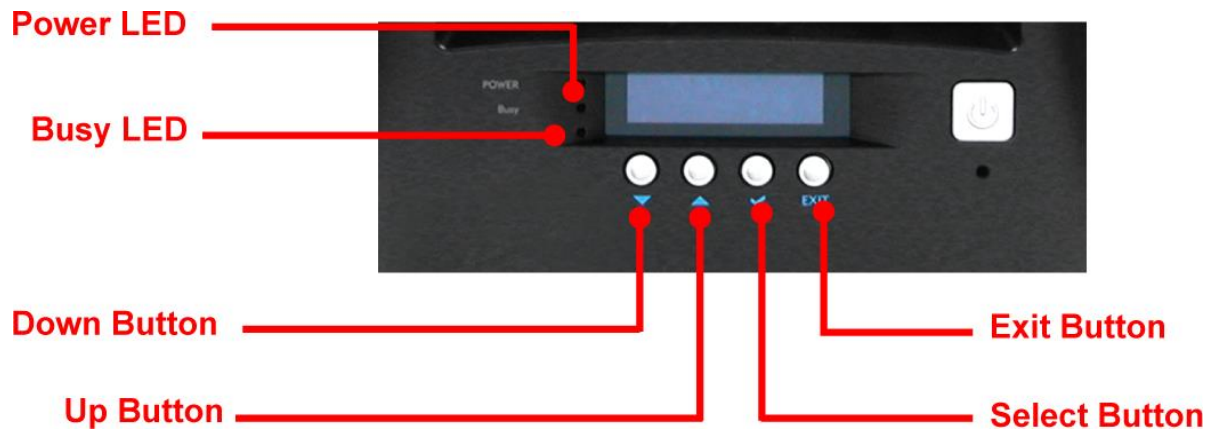
Parts	Function
Fan Fail LED 	When fan fails, this LED will turn red and an alarm will sound.
Over Temperature LED 	If temperature irregularities in the system occurs (HDD slot temperature over 55°C), this LED will turn RED and alarm will sound.



2.3.4 Lock Indicator

Every Drive Carrier is lockable and is fitted with a lock indicator to indicate whether or not the carrier is locked into the chassis. Each carrier is also fitted with an ergonomic handle for easy carrier removal.

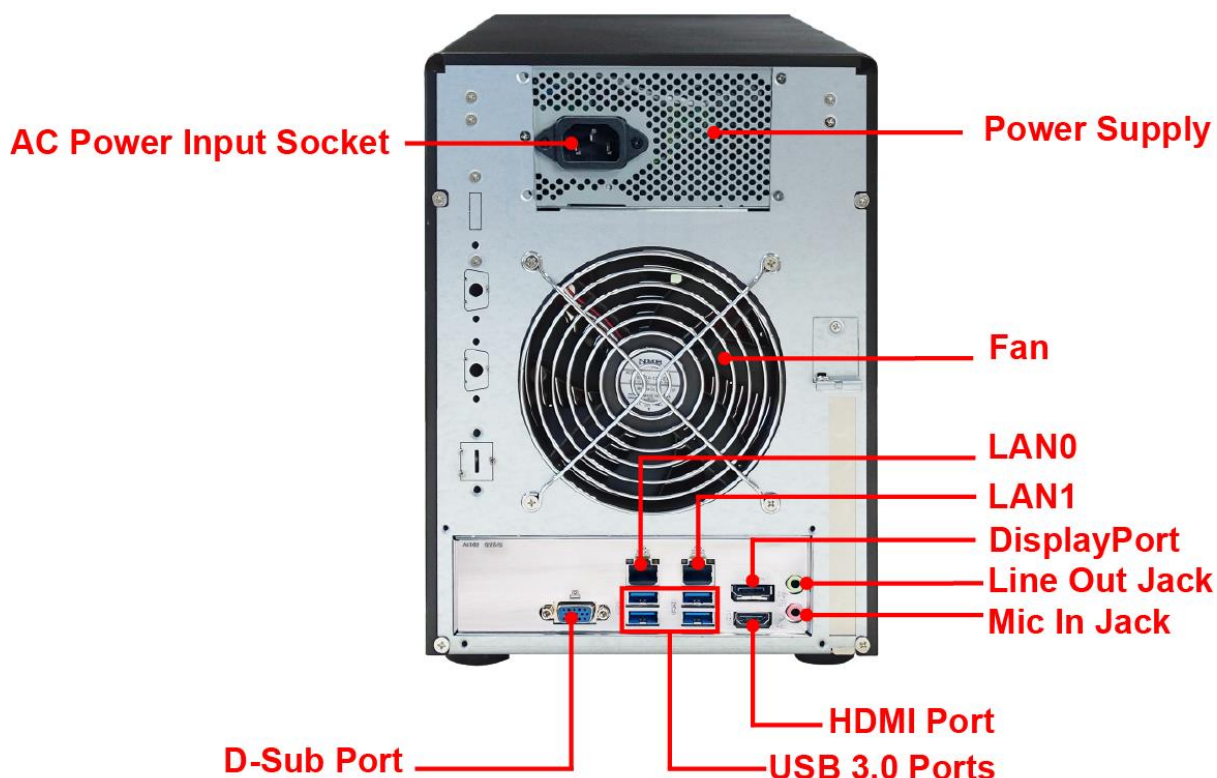


2.3.5 Front Panel

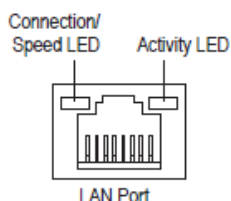


PARTS	FUNCTION
Power LED	Green LED indicates power is on.
Busy LED	Orange blinking indicates system is busy or data is being accessed.
Up and Down Arrow buttons 	Use the Up or Down arrow keys to go through the information on the LCD screen. This is also used to move between each menu when you configure the subsystem.
Select button 	This is used to enter the option you have selected.
Exit button EXIT	Press this button to return to the previous menu.

2.3.6 Rear View



- 1. AC Power Input Socket** - Use this to connect the power cord connected from power source.
- 2. D-Sub Port** - The D-Sub port supports a 15-pin D-Sub connector and supports a maximum resolution of 1920x1200@60 Hz(the actual resolutions supported depend on the monitor being used). Connect a monitor that supports D-Sub connection to this port.
- 3. Power Supply** - The NAS System has one power supply.
- 4. LAN0 and LAN1 Gigabit ports** - The NAS System has two Gigabit data ports. The Gigabit Ethernet LAN port provides Internet connection at up to 1 Gbps data rate. The following describes the states of the LAN port LEDs.



Connection/Speed LED:

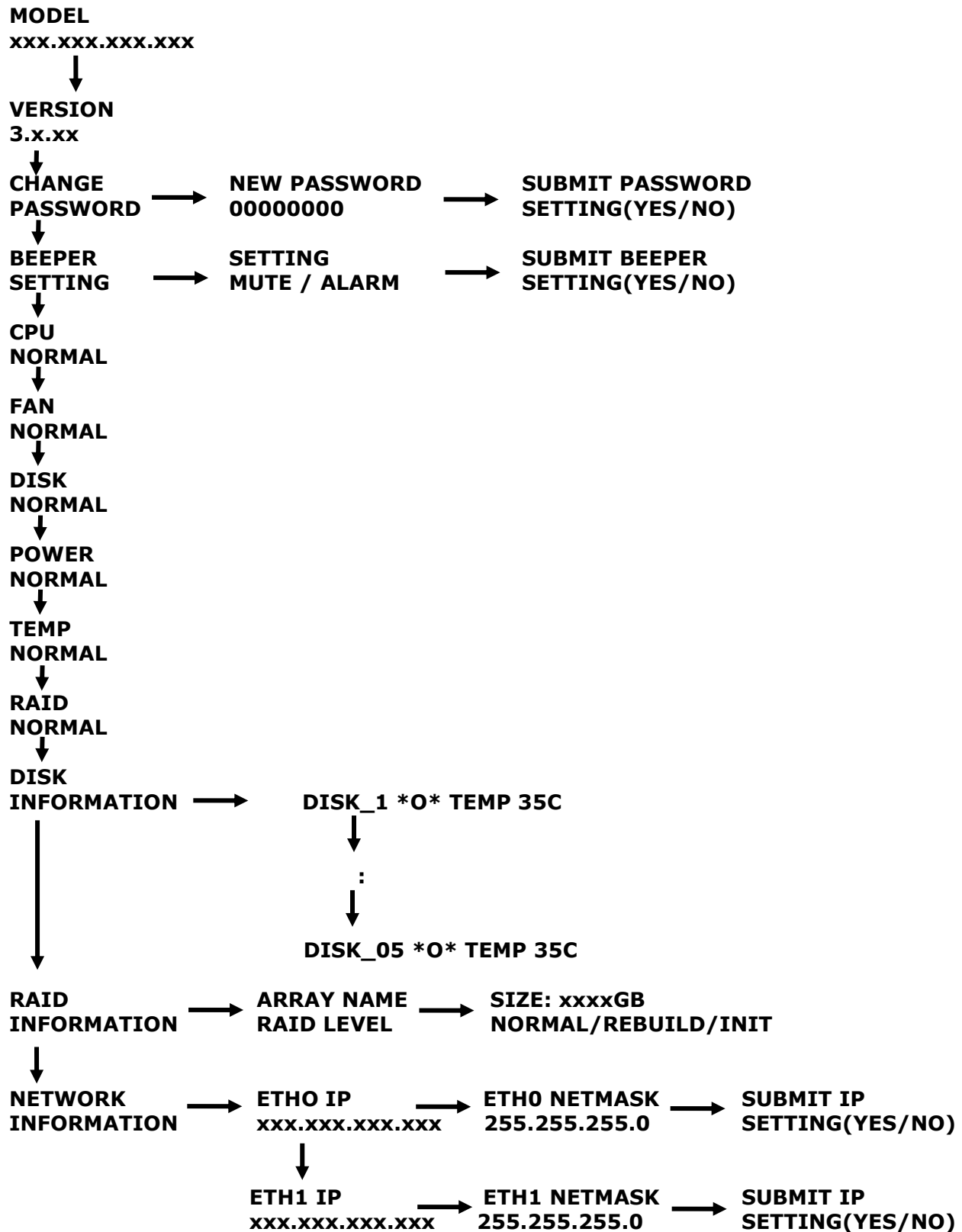
State	Description
Orange	1 Gbps data rate
Green	100 Mbps data rate
Off	10 Mbps data rate

Activity LED:

State	Description
Blinking	Data transmission or receiving is occurring
On	No data transmission or receiving is occurring

- 5. DisplayPort** - DisplayPort delivers high quality digital imaging and audio, supporting bi-directional audio transmission. DisplayPort can support both DPCP and HDCP 2.3 content protection mechanisms. It provides improved visuals supporting Rec. 2020 (Wide Color Gamut) and High Dynamic Range (HDR) for Blu-ray UHD playback. You can use this port to connect your DisplayPort-supported monitor. Note: The DisplayPort Technology can support a maximum resolution of 4096x2304@60 Hz but the actual resolutions supported depend on the monitor being used.
- 6. HDMI Port** - The HDMI port is located at the rear of the system. HDMI (High-Definition Multimedia Interface) is an all-digital audio/video interface capable of transmitting uncompressed audio/video signals.
- 7. USB 3.0 Port** - The USB 3.0 port supports the USB 3.0 specification and is compatible to the USB 2.0/1.1 specification.

2.3.7 LCD Menu Diagram



2.4 Getting Started with the NAS System

2.4.1 NAS Hardware Setup

1. Attach network cable to LAN0 Ethernet port. Connect the other end of network cable to your network hub or switch. You may also connect the other Ethernet ports if needed.
2. Plug in the power cord into the AC Power Input Socket located at the rear of the subsystem.



3. To turn on the NAS, turn on the main switch button in the front panel.
4. The Power LED on the front panel will turn green.

2.4.2 Installing Hard Drives

2.4.2.1 Installing 3.5" Disk in a Disk Tray

This section describes the location of the hard drives in the NAS system and gives instructions on installing a hard drive. The system supports hot-swapping allowing you to install or replace a hard drive while the system is running.

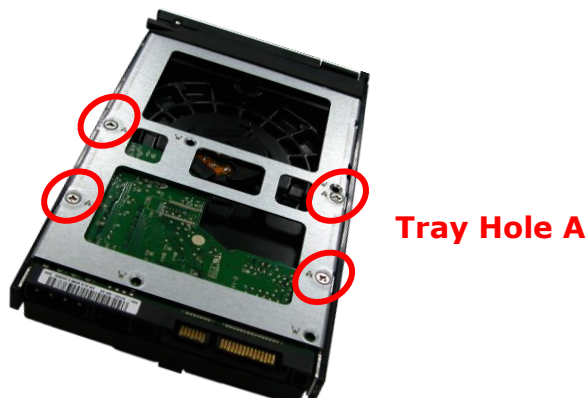
- a. Make sure the lock indicator is in unlocked position. To pull out a disk tray, press the Lock Indicator Button. Pull the handle outwards to remove the disk tray from the enclosure.



- b. Place the hard drive in the disk tray.



- c. Make sure the holes of the disk tray align with the holes of the hard drive. Install the mounting screws on the bottom part to secure the drive in the disk tray.



- d. Slide the tray into a slot and push the Lock Indicator Button.
- e. Press the handle until you hear the latch click into place. The HDD status LED will turn green if subsystem is on.

2.4.2.2 Installing 2.5" Disk in a Disk Tray

- a. Make sure the lock indicator is in unlocked position. To pull out a disk tray, press the carrier open button.

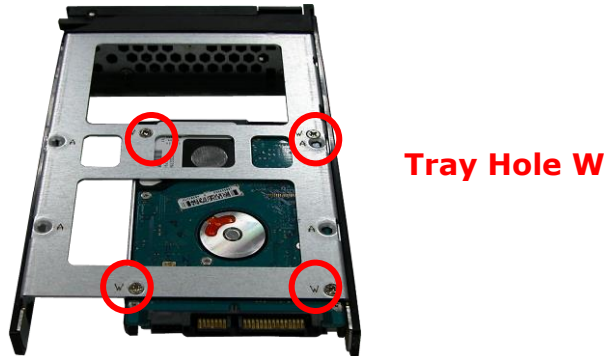
Drive Tray is Unlocked



- b. Pull out an empty disk tray. Pull the lever handle outwards to remove the carrier from the enclosure.
- c. Place the 2.5" hard drive in the disk tray.



- d. Install the mounting screws on the bottom part to secure the drive in the disk tray.



- e. Slide the tray into a slot.
- f. Close the lever handle until you hear the latch click into place.