

UltraStor Enterprise ES Series **E400 IP**

3U 16 disks iSCSI for High availability RAID storage array

E400 IP

Quick start guide

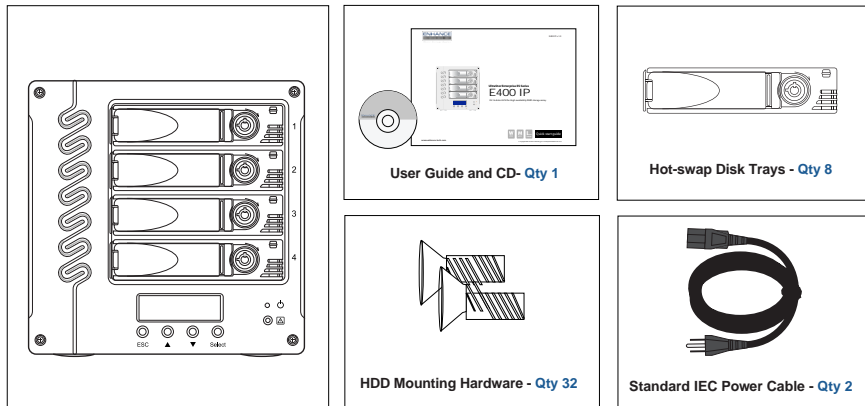
1 Welcome

Thank you for choosing Enhance Technology

Thank you for buying Enhance Technology E400 Series, a compact dual GbE iSCSI RAID storage system with a slick T shaped tray design, built in next generation hardware RAID controller, and a standard 300 watts 80+ green power supply.

2 What is in the box?

Carefully unpack your E400 IP storage system, and inventory the accessories according to your model type.



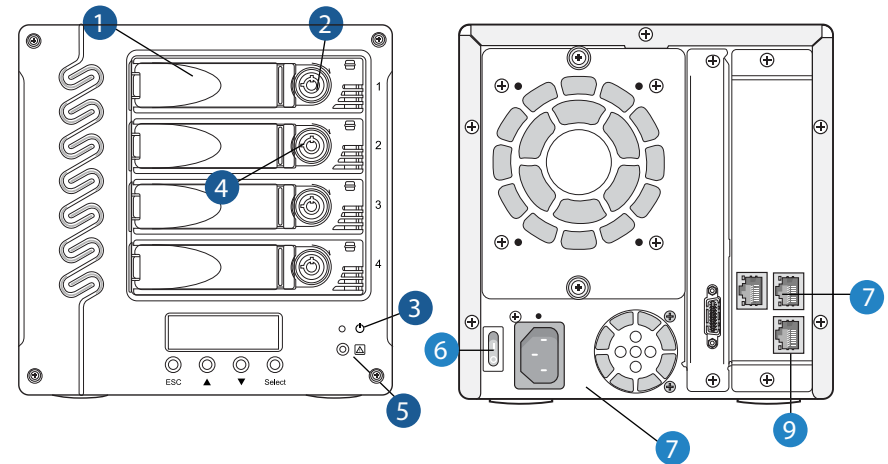
3 Unpack your E400 IP

Unpack all components including the HDD mounting screws, key sets and cables. If you are missing any of the items mentioned above, please contact your dealer or contact Enhance Technology at www.enhance-tech.com.

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Understanding your E400 IP

Learn and identify each component of E400 IP



Front:

1. Security Key Lock
2. Hot-swap HDDs Tray
3. Power LED
4. HDD Active LED
5. Fan Error LED

Rear:

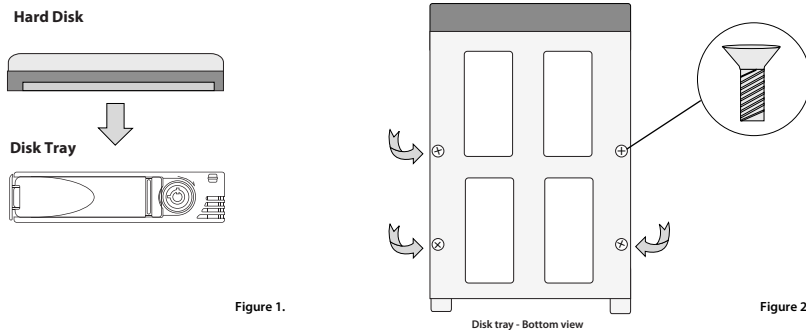
6. Power Switch
7. Power Supply
8. Web GUI Management Console
9. Dual GbE iSCSI Ports

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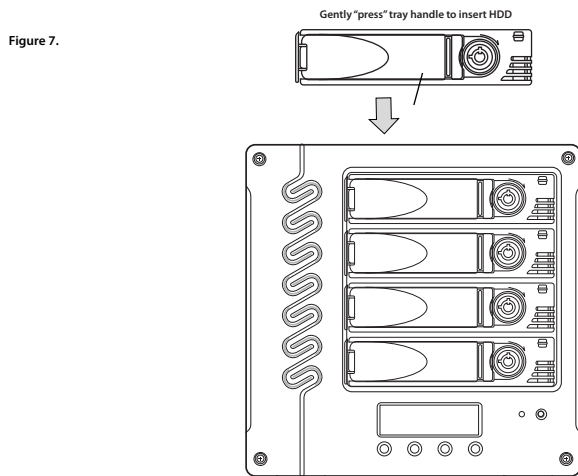
5 Disk Installation

If your system was purchased with capacity, please skip this section and immediately go to next section. If your system was purchased without disks, install each disk into the provided disk trays and fasten using the supplied hdd screws. Do not use any other mounting screws other than the ones provided with your system. System or disk damage may occur if using non-approved mounting hardware.



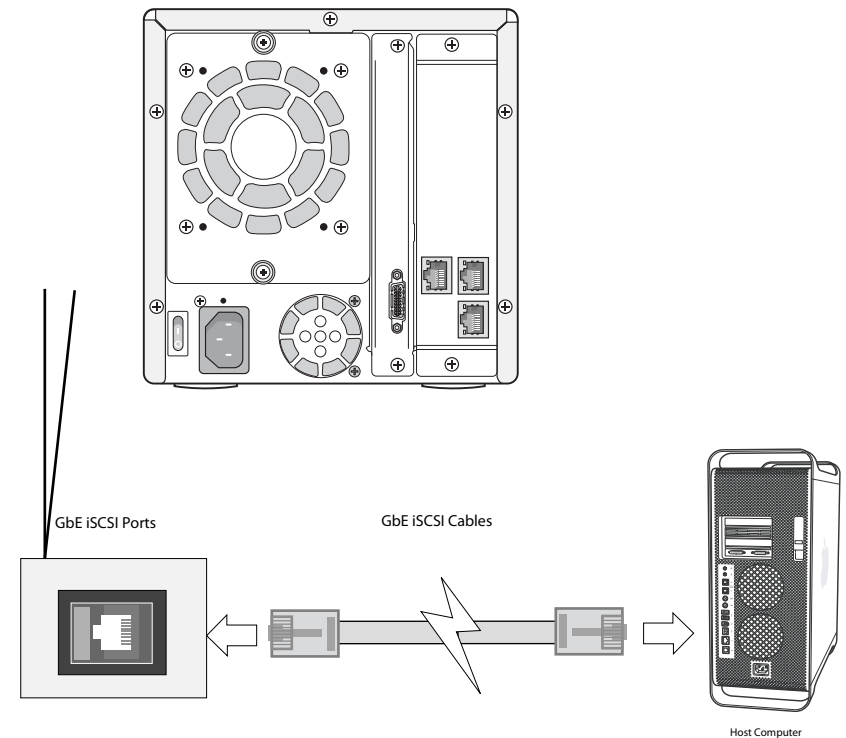
6 Insert Disk Module

After fastening each disk, insert the disk trays in the open disk bay on your system. For added security, your system is equipped with locking disk bays to prevent accidental or malicious disk removal.



7 Connecting Your E400 IP - Cable Connections - Option 1

Direct connect to the host computer with iSCSI cables. Ensure that all of the connectors are properly secured & fastened. Most common issues are related to poor cable connection. Do not force connector into place.



8 Connecting Your E400 IP - Cable Connections - Option 2

Connect to the host computer via Ethernet Switch with iSCSI cables.
Ensure that all of the connectors are properly secured & fastened. Most common issues are related to poor cable connection. Do not force connector into place.

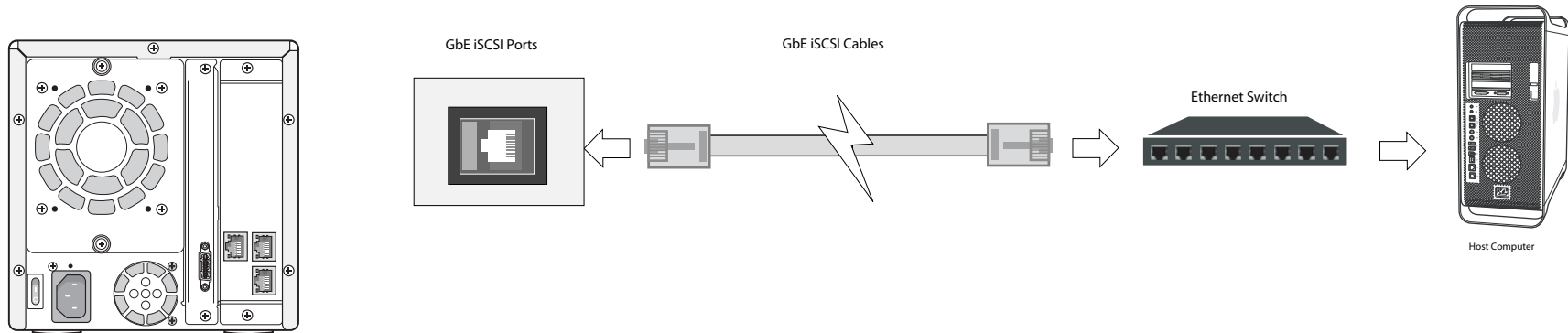


Figure 9.

9 Connecting Your E400 IP - Web GUI Connection

Connect E400 Web GUI console to the host computer on the network with cross over cable or connect to the Ethernet switch with LAN cable then power on the system.

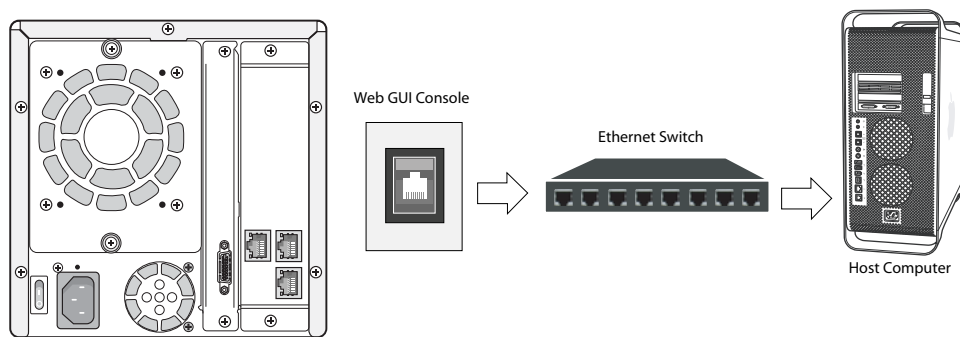


Figure 10.

10 Power On

After connecting both data and Web GUI cables to your system and host computer, power-on your E400 first, then power-on your host computer. Your array is now ready for RAID configuration in the Web GUI.

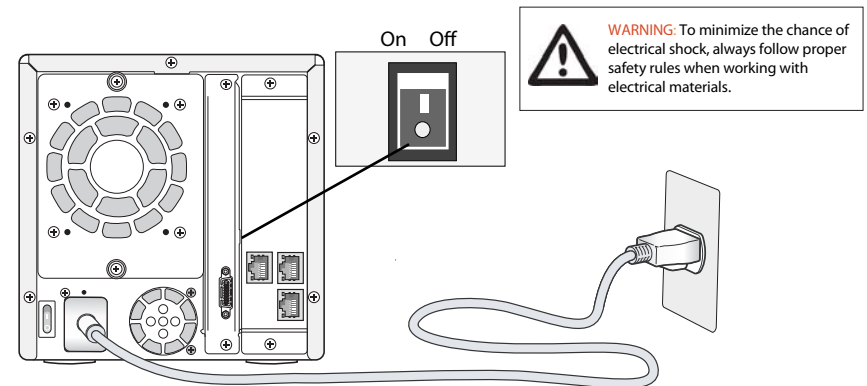


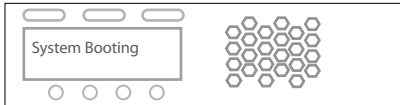
Figure 11.

E400 IP

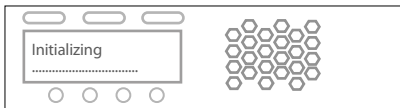
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11 Preparing E400 IP for Configuration

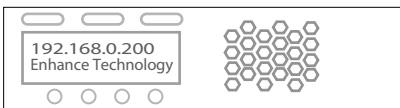
After power-on, the power LED and hard disks LEDs will light up and your E400 will display a message showing the system is booting then change to Initializing mode for few seconds to check the system.



1. System is booting up when turn on the power.



2. RAID controller is initializing the system to check the hardware connection and memory. This is NOT initializing for the hard disks.



3. The system has booted up successfully and showing the system IP address on the LCD screen.

Now you can login Web GUI to create a RAID Array for your TS800

Figure 12.

12 Login Web GUI

To access Web GUI utility, launch the web browser on your computer and enter the E400's IP address in the address field.
Login Name: admin Password: 1234

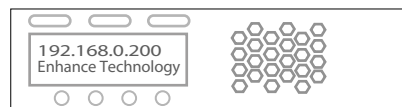
Web GUI Sreen View



Figure 13.

NOTE: By default, the Web GUI's network connection type is set to **Automatic configuration - DHCP**, which should be kept only if your network supports DHCP or you are connecting through a dynamic IP address.

The TS2060's IP address should be seen on the screen of the controller. By default the IP address is **192.168.0.200**

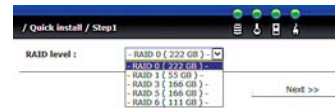


If you are required to use a permanent IP address, you need to set a static IP address for the system. (Please refer to User Manual CD for detail information)

13 Create a RAID Array

You will be using the Quick Install function in the Web GUI to create a RAID and User Data Volume for your E400.

NOTE: The Quick Install function is designed for set up a single RAID level with a single User Data Volume. If you want to configure your system with multiple RAID levels with multiple User Data Volumes please learn from system User Manual CD for complete instructions.



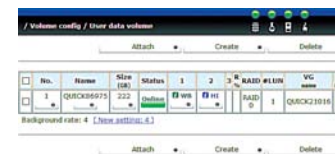
Step 1: Select Quick Install then choose the RAID Level desired. After choosing the RAID level, click NEXT.



Step 2: In this step, the volume can be customized as needed. Volume size, Bus ID, SCSI ID, and LUN can be assigned specified numbers to be attributed to the volume. The maximum volume size is shown as default. The volume can only be less or equal to the number shown. By default, the Bus ID, SCSI ID, and LUN are set at 0. Click NEXT after desired volume size and IDs are set.



Step 3: Confirm if all the setting are correct then click Confirm to finish the setup.



Done: A summary page with the User data volume will be shown: A RAID 0 user data volume with the UDV name "QUICK86975", named by the system itself, with the total available volume size 222GB.

Figure 14.

NOTE: Depending on the capacity of your system. The RAID array initialization process may take several minutes. Please allow plenty of time for this process. Never turn off your TS800 while initializing the array.

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Format Volume for Windows OS

Please refer to your computer's documentation for detailed information on formatting and preparing volumes for use

To format the drive for Windows OS

1. Click on Control Panel, Performance and Maintenance, Administrative Tools.
2. Click on the Computer Management icon.
3. Click on the Disk Management Icon.
4. Right click on the new drive's icon in the right hand window
5. Select the Format option, click yes in warning window.
6. Type a name for the drive under volume label.
7. Select perform quick format option.
8. Click OK in format warning box.
9. The drive will be formatted and available in My Computer and Windows Explorer.

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Format Volume for Mac OS

Please refer to your computer's documentation for detailed information on formatting and preparing volumes for use

To format the drive for Mac OS

1. Go to the Applications folder on your system hard drive.
2. Open the Utilities folder.
3. Double click on the Disk Utility Program.
4. Find the drive in the left hand window and select the drive.
5. Click on the Partition tab.
6. Under Volume Scheme select 1 Partition
7. Type a name for the drive in the box provided.
8. Select Mac OS extended under the format options.
9. Click on Partition in the Partition dialog box.
10. The drive will be formatted and mounted on the desktop.

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Format Volume for Linux OS

Please refer to your computer's documentation for detailed information on formatting and preparing volumes for use

Configure iSCSI:

1. Open /etc/iscsi.conf file, enter:
vi /etc/iscsi.conf
2. Setup it as follows:
DiscoveryAddress=ISCSI_TARGET_HOST_OR_IP
OutgoingUserName=ISCSI_USER_NAME
OutgoingPassword=ISCSI_PASSWORD
LoginTimeout=15
Then, save and close the file
3. Start the iscsi service
Type the following command to start iscsi service so that you can see block device:
chkconfig iscsi on
/etc/init.d/iscsi start
4. Run any one of the following to find out new block device name:
fdisk -l
tail -f /var/log/messages
find /sys/devices/platform/host* -name "block**"
5. Format iSCSI device
Use fdisk and mkfs.ext3 commands. First, create a partition (assuming that /dev/sdc is a new block device assigned to iscsi) :
fdisk /dev/sdc
mkfs.ext3 /dev/sdc1
Create /mnt/iscsi directory:
mkdir -p /mnt/iscsi
Open /etc/fstab file and append config directive:
/dev/sdc1 /mnt/iscsi ext3 _netdev 0 0
Save and close the file. Mount the partition /dev/sdc1:
mount -a
df -H

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Troubleshooting

This section covers some common support questions. If you are experiencing an urgent issue, please contact your dealer or call 1-562-777-3488 ex 119.

Connection Problems:

Always double check for loose cable connections or improperly seated disks if you experience problems where a disk or volume does not appear in your computer, or you receive an error message stating a disk missing when you have the drives configured as a RAID set.

1. Disconnect the data cables and reconnect each cable one at a time, ensuring each connector is screwed in securely on your system.
2. Make sure the connector is properly secured on your HBA.
3. Check your TS800 IP's drive presence LEDs, located on the front panel of the system. If the LEDs are not lit, remove the disk and reinsert the disk module.

If the problem persists, please contact your dealer or contact Enhance's support department at support@enhance-tech.com