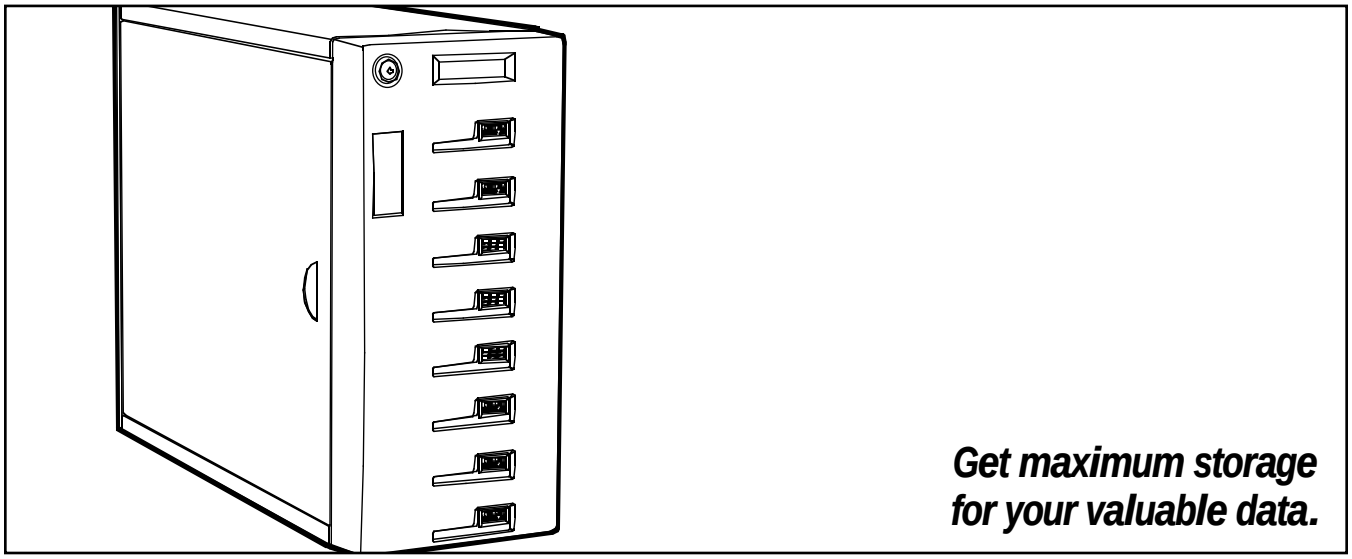
BLACK BOX®
NETWORK SERVICES

# 7-BAY NAS RAID 5



***Get maximum storage for your valuable data.***

## Key Features

- ***Hot-swappable disk drives provide 18, 36, or 73 GB each.***
- ***Up to 511 GB of disk space available via a total of 7 drives.***
- ***Drives install easily via simple SCSI connections.***
- ***Chassis protects the disk drives from temperature and vibration changes.***
- ***Manageable through any standard Web browser.***

The Black Box NAS RAID 5 brings flexible, scalable file storage and file backup to the workgroup and department. It's easy to set up and use, and it doesn't require a certified engineer to manage it.

The NAS RAID requires only two connections: one to the network and one to a power source.

Using a standard twisted-pair network cable, attach the NAS RAID to an Ethernet segment. Connect the power cord to the tower or rackmount, and plug it into a power outlet. Turn on the On/Off switch.

LEDs for Status, Network Activity, 10/100 Network Speed, and Drive Activity tell you the state of your connection at a glance.

RAIDView software (included) lets you set the IP address to one that is valid for your network.

You can use any Web browser, such as Microsoft Internet Explorer or Netscape Navigator, to access the administrative tools you will use to configure and manage your server.

And the RAID is secure—it provides authentication by NDS, NetWare Bindery, or Windows NT® domain.

To get more storage space, simply add 18-, 36-, or 73-GB disk drives (ordered separately) for a total of up to 511 GB disk space.

To upgrade your server engine, order RAM upgrades (available in 128 or 256 MB).

# Specifications

**Operating Systems Supported:** Windows NT®, NetWare®, UNIX® (NFS), Macintosh® (requires firmware upgrade)

**Connectors:** (1) RJ-45 10/100-Mbps Ethernet, (2) Power, (6) Ultra-Wide 40-Mbps SCSI

**Indicators:** LEDs per unit: (1) Status, (1) Network Activity, (1) 10/100 Network Speed, (1) Drive Activity

**Approvals:** CE

**Power:** (2) Hot-swappable, 115 or 230 VAC, 50 or 60 Hz, 300 watts

**Size:** 44.2H x 20.1W x 54.9D cm (17.4"H x 7.9"W x 21.6"D)

**Weight:** Chassis only: 18.1 kg (40 lb.)

# What the CD contains

- Online Help file
- Black Box NAS RAIDView
- FTP utility
- Microsoft® Internet Explorer Web browser
- README file
- PDF version of the users' manual

# Black Box Explains . . .

RAID (Redundant Arrays of Independent Disks)

RAID is an established technology that provides capacity, reliability, high performance, and economy for the storage of on-line data.

The RAID system manages a set of disks, but appears to the user as a single large disk. The advantage of multiple disks is that if any single disk fails, the data is transferred to a neighboring disk, and the system continues to operate without any loss of data. Multiple disks can also be searched simultaneously and quickly.

Fault-tolerance is high with RAID. Individual disks can be replaced while the system continues to function. With this hot-swapping capability, network managers can save time and avert potential problems before they threaten system operation.

**RAID Levels:**

**RAID Linear.** Enables you to select one or more hard drives or portions of hard drives to store files sequentially. If a drive fails, data stored on it is lost. However, this method enables you to use the maximum capability of the drive.

**RAID 0 (Striping).** In this level, equal portions of a file are stored on each drive assigned to the group. The data is "striped" across the drives. This method is exceptionally fats, but it is not suitable for mission -critical data because if one drive fails, all data on all drives is corrupted.

**RAID 1 (Mirroring).** This level has duplicate disks operating side by side in parallel "disk mirroring." System reliability is very high. If one disk fails, the other can supply any data needed. However, only 50% of drive capacity is available for storage.

**RAID 5 (Checksum).** This level uses data striping with a checksum. Data is striped across the drives in a group as in RAID 0. However, each group must have at least three drives and each drive in the group also contains parity information. The parity information is distributed evenly across the group. This distributed parity enables recovery of lost data from a single disk failure because there is enough parity information on the other drives to rebuild the lost drive. This method combines the speed of RAID 0 with some measure of data security. However, data can still be lost if more than one drive fails.

# What's Included with the NAS RAID 5:

- (1) controller/server engine
- (2) power supplies
- (3) fans

# *Ordering Information*

| ITEM | CODE |
|---|---|
| 7-Bay NAS RAID 5 | NASSRV-7 |
| Hot-Swappable Disk Drives | |
| 18-GB | NASHD-18 |
| 36-GB | NASHD-36 |
| 73-GB | NASHD-73 |
| RAM Upgrade | |
| 128-MB | NASRAM-128 |
| 256-MB | NASRAM-256 |
| Rackmount Kit | NASRACK |
| *Remember to order cable…* | |
| Category 5 Solid-Conductor Cable, 4-Pair, Straight-Pinned, PVC, 3-m (10-ft.) | EYN737MS-0010 |