

User Manual
TeraStation Pro
TS-TGL/R5



Congratulations on your new TeraStation! This user manual is intended to assist you in configuring it.

Because we're constantly updating our product, the images and text in this manual may vary slightly from the images and text displayed by your TeraStation. These changes are minor and should not affect the ease of setup adversely. As time passes, future user interfaces, updated software, and later versions of this manual may be freely available for download at our web site: *<http://www.buffalotech.com>*.

If you run into difficulties or need additional help, feel free to contact our technical support. Contact information for Buffalo Technology and our technical support is available on pages 73 and 74.

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Begin setting up your TeraStation by plugging your *power cable* and *Ethernet cable* into the back of the TeraStation as shown.



Connect your cables



Plug the *power cord* into a 120 volt wall socket.



Plug the other end of the *Ethernet cable* into a hub, router, or switch in your network.



Press the *power button* on the front panel. LEDs will light as your TeraStation boots up.

After your TeraStation has completed booting up, check the *LINK/ACT LED* on the front of the TeraStation. If it's lit, then your TeraStation is connected properly, and you can go on to page 8. If it's not lit, turn to page 7 for troubleshooting.



The TeraStation's Ethernet port will automatically adjust to use either a Crossover or Patch cable, so you may connect the TeraStation to your network with either type of Ethernet cable. Buffalo Technology doesn't recommend connecting the TeraStation directly to a PC.

Verify that the *LINK/ACT LED* on the front of TeraStation is lit (see page 6's picture). If it's lit, go to page 8 to continue setting up TeraStation. If the *LINK/ACT LED* is still not lit, try the suggestions below to verify that you're not suffering from common setup problems.

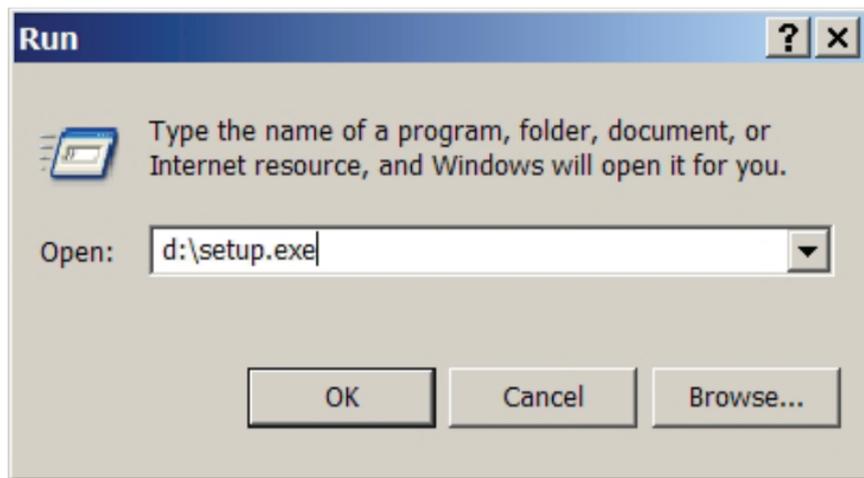
Having problems? Make sure that:

- the TeraStation and the router, hub or switch are both powered on,
- the Ethernet cable is securely plugged in at both ends, and
- the Ethernet cable is not damaged. Verify this by trying a different Ethernet cable.

If problems persist, contact our 24/7 technical support at (866) 752-6210 (USA & Canada only).

Technical Support in Europe is available between the hours of 9am - 6pm (GMT) Monday through Thursday and 9am-4:30 pm (GMT) Friday for this product. Customers in Europe can obtain Technical Support using the following information: Email: helpdesk@buffalo-technology.ie | Web: www.buffalo-technology.com

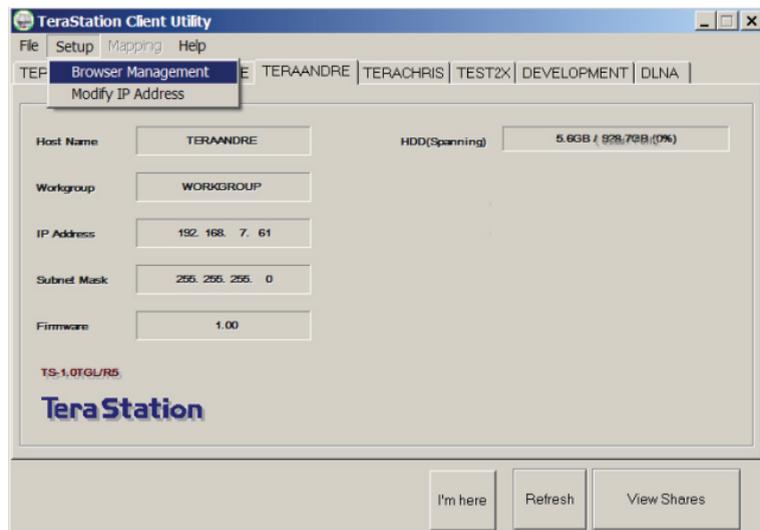
Insert the TeraNavigator CD into your PC's CD-ROM drive. Setup should automatically launch. If it does not, manually launch `setup.exe` by pressing the *Start* menu and selecting the *Run...* option. When the *Run* dialog opens, type **d:\setup.exe** (where d is the drive letter of your CD-ROM drive). Press *OK* to continue.



TeraNavigator should now be running. Press the *Install Client Utility* button, and then press the *Start* button. Once the installation has completed, press the *Launch* button.



The *TeraStation Client Utility* allows you to easily configure TeraStation's network settings. The tabs show the names of available TeraStations. If you have more than one TeraStation on the network, click the tab of the one you want to select it. While a TeraStation's tab is selected, its *IP Address* is visible and the *View Shares* button will take you directly to its network shares and folders. See page 64 for more information on the TeraStation Client Utility. For now, make sure that the proper TeraStation's tab is selected, click *Setup* from the pull down menu, and choose *Browser Management*.



This login prompt will appear. Enter **admin** for the user name. Until you change it, the password for the admin account will be **password**. Press the *OK* button when finished.



User name: *admin*

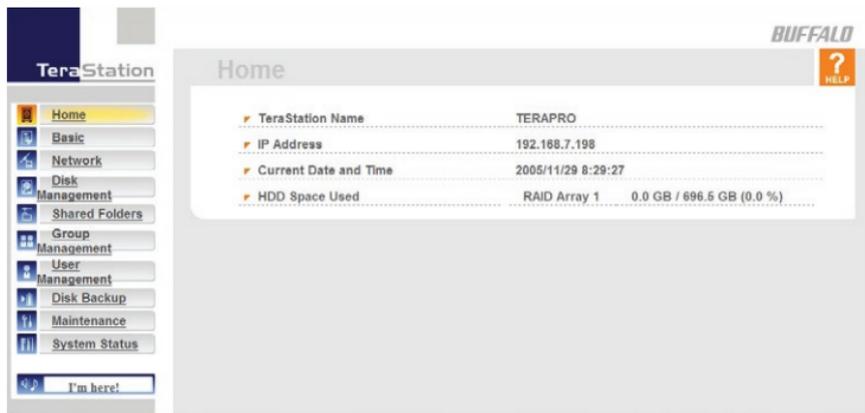
Password: *password*

See page 44 to change your password.

If this login prompt does not appear, your DHCP server may not be functioning correctly. If DHCP is disabled, you may re-enable it, or verify that the TeraStation's IP Address (page 10) is in the same range as that of your PC.

NOTE: Pages 64 and 65 describe how to configure the TeraStation with a Static IP Address.

You are now logged in to the TeraStation Management Utility. Bookmark this page in your browser so it can be easily accessed for future configuration changes. If the TeraStation's IP Address changes, you will need to recreate this link. You can also get here by typing *http://TERASTATION_NAME* into a Web browser, where TERASTATION_NAME is the name of your TeraStation that you set on page 13. For detailed explanations of each menu and setting, please refer to the *Advanced Settings* section, starting on page 24 of this manual. To continue setup, click on the *Basic* link on the left side.



The screenshot shows the TeraStation Management Utility interface. On the left is a navigation menu with the following items: Home (selected), Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. At the bottom of the menu is a search box containing the text "I'm here!". The main content area is titled "Home" and features a "BUFFALO" logo in the top right corner with a "HELP" button. Below the title, there is a table of system information:

▶ TeraStation Name	TERAPRO
▶ IP Address	192.168.7.198
▶ Current Date and Time	2005/11/29 8:29:27
▶ HDD Space Used	RAID Array 1 0.0 GB / 696.6 GB (0.0 %)

Here on the *Basic* page, begin by changing the name of your TeraStation in the *TeraStation Hostname* field. A friendly, easy-to-remember name (such as “TeraStation”) is recommended. The name cannot contain any spaces or special characters. Alphanumeric characters, hyphens, and underscores are allowed.

A short description of the TeraStation can be entered into the *TeraStation Description* field. You’ll then see this description in Network Neighborhood on Windows machines.

Make sure that the date and time are correct in *Date and Time Setup*. To synchronize clock settings with your computer, press *Use Local Time*.

Once desired fields have been completed, press the *Apply* button at the bottom of the page.

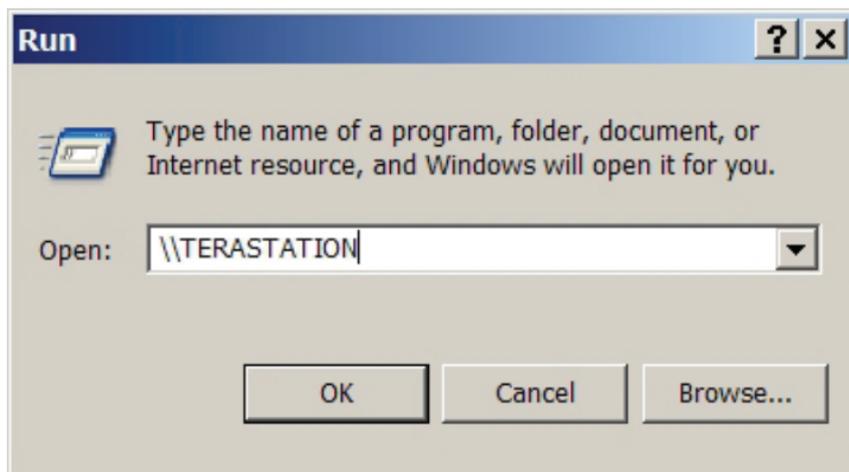
For more information on the Configuration Utility, turn to *Advanced Settings*, beginning on page 24.

The screenshot shows the 'Basic' configuration page of the TeraNavigator utility. On the left is a navigation menu with options: Home, Basic (selected), Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main content area is titled 'Basic' and includes a 'BUFFALO' logo and a 'HELP' icon. The configuration is organized into sections: 'Hostname Setup' with fields for 'TeraStation Hostname' (TERAANDRE) and 'TeraStation Description' (TeraStation); 'Date and Time Setup' with fields for Date (2005 Year, 12 Month, 9 Day), Time (12 Hours, 54 Mins, 5 Secs), a 'Use Local Time' button, and a 'Time Zone' dropdown (GMT-06:00); 'NTP Settings' with 'NTP Server' (Enable/Disable) and 'NTP Server Address' (Use default NTP server (ntp.js1.mfeed.ad.jp)); and 'Text Display Settings' with 'Display Language' (English) and 'Windows Client Language' (CP437 (United States, Canada)). An 'Apply' button is located at the bottom of the form.

Congratulations! You've completed basic setup. For more detail on the other settings available in your TeraStation, turn to *Advanced Settings*, beginning on page 24.

To Access TeraStation Data on a PC:

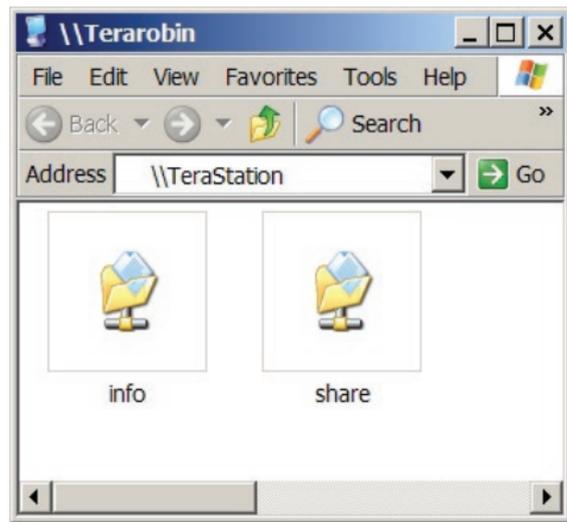
Press the *Start* menu, select the *Run...* option. When the *Run* dialog opens, type **\\TeraStation_Name** (where "TeraStation_Name" is the TeraStation Hostname set on page 13). Press the *OK* button to continue.



Accessing TeraStation Data from a PC

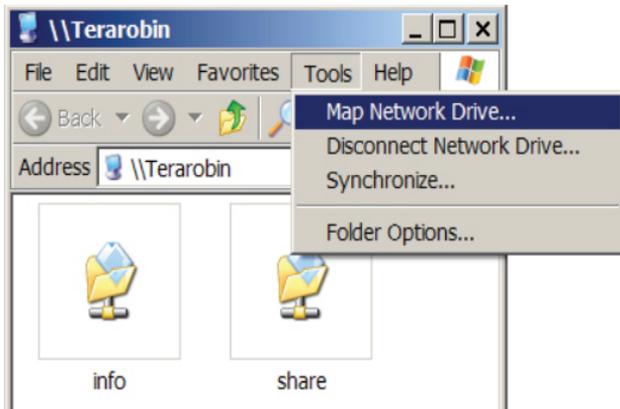
TeraStation's root directory will appear. You will see all of the configured shares, including *share*, the preconfigured data folder. All users can read and write to all folders unless otherwise configured. To set up security and password protection, or add other shares to your TeraStation, please refer to pages 38 - 39 of this manual. To change your RAID configuration, see pages 29 - 30. Drive letters can also be mapped to shares on your TeraStation; see page 16 for more information.

Note: If this page does not appear, or if you receive a popup window from your firewall saying that a NetBios Session has been blocked from your TeraStation's IP Address, you will need to add your TeraStation's IP Address to your firewall's trusted zone. You can get your TeraStation's IP Address from the *TeraStation Client Utility* (see page 10). Consult your firewall documentation for more information on allowing network access to and from a specific IP Address.



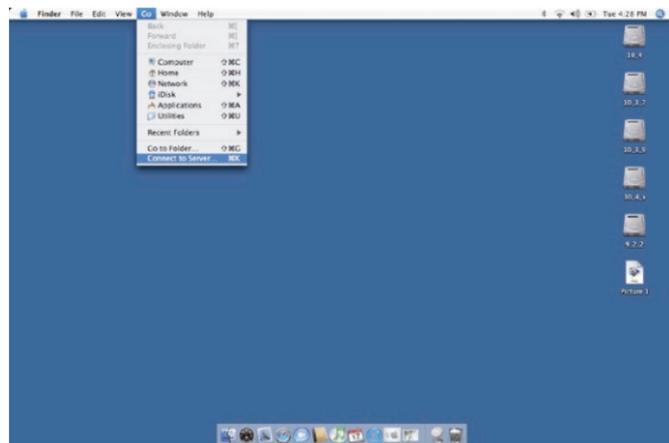
Accessing TeraStation Data from a PC

From the TeraStation's *Root Directory* screen (see page 15), click the *Tools* pull down menu and select *Map Network Drive*; *Map Network Drive* will run. Select the drive letter you would like to map from the *Drive:* pull down menu. Enter **\\TeraStation_Name\share_name** in the *Folder:* field, where *TeraStation_Name* is the *TeraStation Name* set on page 13 and *share_name* is *share* (if you're mapping to this preconfigured folder) or the name of another shared folder that you set up on page 38. You may browse for a shared folder by pressing the *Browse* button and searching through the *Entire Network* and then the *Microsoft Windows Network*. Check the *Reconnect at logon* checkbox to have Windows connect to this mapped drive everytime it starts. When finished, press the *Finish* button. TeraStation is now mapped to a drive letter.



Accessing TeraStation Data from a Mac

If your Mac does not automatically detect your TeraStation's Share folder and put it on your desktop, you will need to add the TeraStation to the Mac's server list. Begin by clicking *Go*, and then choose *Connect to Server*.

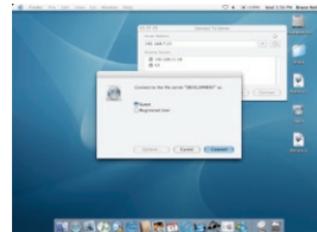


In the *Server Address* field, enter your TeraStation's IP address in the form *smb://ipaddress* (where "ipaddress" is your TeraStation's IP address), and click *Connect*.

If you don't know your TeraStation's IP address, see page 19.

Accessing TeraStation Data from a Mac

Select *Guest* and click on *Connect*. Note: If you have configured share permissions on your TeraStation, select *Registered User* and enter your Registered User credentials.



Select the volume that you want to mount, such as *share* or *share-mac*, from the list of folders on the TeraStation.



The share will open. A link to the shared folder will appear on your desktop.



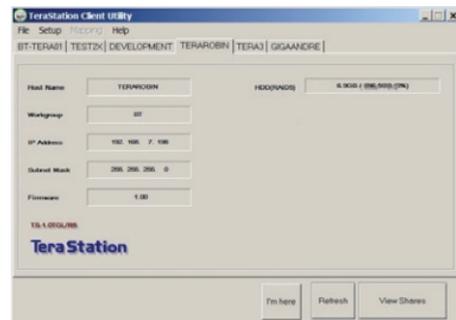
Accessing TeraStation Data from a Mac

If you don't know your TeraStation's IP address, there are several ways to get it.

One simple method is to use the TeraStation client utility (included on your CD) to find your TeraStation(s). Just click on the tab for your TeraStation and you'll be able to read its IP address. You must have a Windows PC running on the network to use the TeraStation client. See page 64 for more on the TeraStation client utility.

You can get the TeraStation's IP address from the LCD display on the front of the TeraStation as it boots up.

You can always get the TeraStation's IP address from your router's configuration utility. Many Buffalo routers list this information on the *Client Monitor* page, as shown to the right. Consult your router's documentation for instructions on identifying the TeraStation's IP address.



TeraStation Pro has two USB 2.0 ports on the rear. These ports can be used for adding external USB Hard Drives or UPS systems. TeraStation will share connected USB storage devices, allowing everyone on the network to use them. Up to two external USB hard drives may be added to TeraStation Pro. To connect a USB hard drive or UPS to TeraStation, simply plug it into one of the USB Ports.

You may plug in additional USB hard drives to either of the USB ports on your TeraStation. See page 34 for setting up your USB hard drive on the TeraStation. See page 38 for information on setting up shared folders on a USB Hard Drive. Page 37 will show you how to reformat the USB Hard Drive. Page 47 shows you how to set up TeraStation to backup to a USB Hard Drive.

See pages 52 and 53 for more information on using the TeraStation with a UPS.

Power Button – Press and release the Power Button to turn the TeraStation on. Hold it down for three seconds to turn the TeraStation off.

Hard Drive Access – The Access LEDs will blink green when the associated hard drive is accessed. During startup, it's normal for all the lights to blink.

Hard Drive Cage – The tubular lock prevents physical access to hard drives when locked. See page 68 for information on replacing hard drives.



The Status LCD can be configured to display specific TeraStation information. Please see page 55 to configure the various display options.



UPS interface – An Uninterruptable Power Supply can use this serial port to safely shut down your TeraStation in the event of a power failure. This interface is non-LPS. DP-1, DP-1P, DP-2, or DP-2P cables may be used to connect to the UPS. The TeraStation Pro also supports many USB Uninterruptable Power Supplies.

10/100/1000 Mbps Ethernet Port – Use this port to connect your TeraStation to a switch, a router, or another computer. The port is autosensing, so either a conventional Ethernet cable or a crossover Ethernet cable may be used.

USB Ports – TeraStation offers two USB 2.0/1.1 ports for adding external drives or UPSs. Please see the *TeraStation Expansion* section on page 20 to learn more about using TeraStation's USB Ports.



Browser Management Tool - Home

The screenshot shows the 'Home' page of the TeraStation Browser Management Tool. On the left is a vertical navigation menu with the following items: Home (highlighted in yellow), Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, System Status, and I'm here! (with a speaker icon). The main content area is titled 'Home' and contains a table of system information:

TeraStation Name	TERAPRO
IP Address	192.168.7.198
Current Date and Time	2005/11/29 8:29:27
HDD Space Used	RAID Array 1 0.0 GB / 696.5 GB (0.0 %)

At the top right of the main area, there is a 'BUFFALO' logo and a 'HELP' button with a question mark icon.

Welcome to *Advanced Settings*! We'll discuss the many adjustments you can make to your TeraStation. Begin by bringing up the *Browser Management* screen that you bookmarked on page 12. You are now at *Home*. Notice that *Home* is lit up in yellow in the screenshot to the left. You can return to this page at any time by clicking on *Home* from the menu at the left of your *Browser Management* screen. Here, you can see basic information about your TeraStation's setup. If you have lost your TeraStation, clicking *I'm here!* at the bottom left will cause it to beep, making it easier to find. For now, click the *Basic* link from the menu on the left side of your screen.

Basic

You may modify your TeraStation's hostname and description under *Hostname Setup*.

Make sure that the date and time are correct in *Date and Time Setup*. To synchronize time settings with those in your computer, press *Use Local Time*. To have your system time automatically set by an NTP server, enable *NTP Server* and enter an IP Address for the NTP server (e.g. 192.43.244.18) or use the supplied default NTP server.

Ensure that both the *Display Language* and the *Windows Client Language* are set to languages that you're comfortable with.

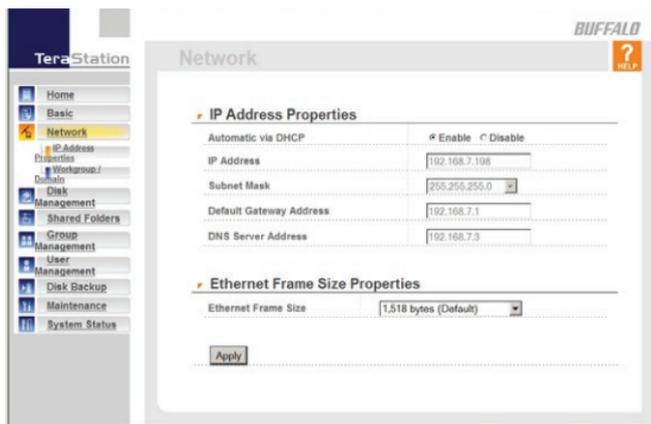
Once desired fields have been completed, press the *Apply* button.

The screenshot shows the 'Basic' settings page of a TeraStation. On the left is a navigation menu with options: Home, Basic (selected), Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main content area is titled 'Basic' and contains three sections:

- Hostname Setup**: TeraStation Hostname is 'TERAANDRE' and TeraStation Description is 'TeraStation'.
- Date and Time Setup**: Date is 2005 Year 12 Month 9 Day. Time is 12 Hours 54 Mins 5 Secs. There is a 'Use Local Time' button. Time Zone is GMT-06:00.
- NTP Settings**: NTP Server is disabled. NTP Server Address is empty, with a checkbox 'Use default NTP server (ntp.jst.mfeed.ad.jp)'.
- Text Display Settings**: Display Language is English. Windows Client Language is CP437 (United States, Canada).

An 'Apply' button is located at the bottom of the settings area.

Network (IP Address Properties)

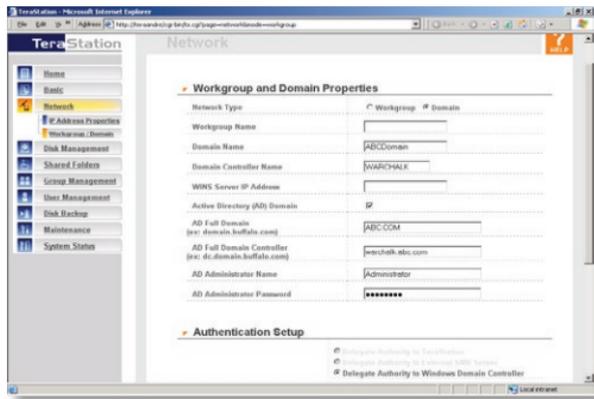


In most networks, TeraStation will get its IP Address automatically from a DHCP server. You may disable DHCP here. If DHCP is disabled and an IP Address is not set manually, it will default to *192.168.11.150*. The TeraStation's *IP Address*, *Subnet Mask*, *Default Gateway Address*, and *DNS Server address* may all be entered manually under *IP Address Properties*.

Ethernet Frame Size may also be set manually on this page. Only use JumboFrame settings when operating in a Gigabit environment where all other clients support the same JumboFrame setting.

Click *Apply* after making any changes.

Network (Workgroup/Domain)



If you are unfamiliar with Domain/Active Directory networking, then please leave the *Network Type* selected as *Workgroup* and *Workgroup Name* set to *Workgroup*.

To make your TeraStation a member of a workgroup or domain, enter the appropriate information into the fields on this page and click *Apply*. Do not select *Domain* unless you have a Windows Server Domain Controller on your network. Please leave the network type selected as *Workgroup* unless you are a network administrator or have been instructed to do so by one.

NOTE: If using *Domain*, TeraStation must be added as a member computer in the Domain Server.

Domain & Active Directory Authentication integrates the TeraStation Pro with Windows Domain and Active Directory Servers. The TeraStation Pro participates as a member device in the Domain and Active Directory networks, allowing the TeraStation to use Users and Groups that reside on the Domain or Active Directory System. If Active Directory is used, then the TeraStation will automatically receive update information from the domain controller(s). To configure the TeraStation Pro on an Active Directory network, you must have the Domain Administrator login credentials. To configure TeraStation Pro in a Windows Domain or Active Directory environment, please select Domain as the Network Type. Enter the Domain Name and Domain Controller into the appropriate fields. In an Active Directory environment, check the Active Directory Domain checkbox and fill in the remaining fields. The Authentication Setup fields will be automatically filled out, so no input is needed there. Once you have finished, press *Apply*.

Disk Management (Drive Properties)

This page shows the current properties of your hard drives and RAID Arrays. To change these settings, click on *RAID Configuration* at left.

The screenshot displays the 'Disk Management' window in the Terastation software. The left sidebar shows a navigation menu with 'Disk Management' selected. The main content area is titled 'Internal and External Drive Properties' and contains the following information:

RAID Array Information

RAID Array 1	Status	Normal
	RAID mode	RAID5
	Disk Structure	Disk 1, Disk 2, Disk 3, Disk 4
	Total Capacity	720,312,800 bytes
	Amount in Use	4,916 bytes
	Percentage in Use	0.00 %
	File Format	XF5

RAID Array 2	Status	Not Configured
--------------	--------	----------------

Disk Information

Disk 1	Status	RAID Array 1
	Unit Name	Not Obtained
	Total Capacity	244,198,884 bytes

Disk 2	Status	RAID Array 1
	Unit Name	Not Obtained
	Total Capacity	244,198,884 bytes

Disk 3	Status	RAID Array 1
	Unit Name	Not Obtained
	Total Capacity	244,198,884 bytes

Disk 4	Status	RAID Array 1
	Unit Name	Not Obtained
	Total Capacity	244,198,884 bytes

USB Disk Information

USB Disk 1	Status	Not Detected

USB Disk 2	Status	Not Detected

TeraStation uses *RAID* (“Redundant Array of Independent Disks”) technology to control the four hard drives in your TeraStation. RAID may be configured several ways:

RAID Spanning - All four drives are striped into one large drive, giving the maximum capacity for your TeraStation. This size is the one listed on your TeraStation’s box and shows the total capacity of the TeraStation with no data used for redundancy. RAID Spanning is fast and efficient, but with no redundancy, if one hard drive fails, all data on the TeraStation is lost.

RAID 1 (mirroring) - Hard drives (or spanned pairs of hard drives) are arranged in mirrored pairs. Each half of the pair reads and writes exactly the same data. This costs you half the total capacity of your TeraStation, but provides excellent redundancy. If a hard drive fails, the mirror continues to supply data, so you may work on normally. You may replace the damaged or defective drive at any time, and normal RAID 1 mirroring will then be automatically restored.

RAID 5 (parity) - All drives in a RAID 5 array reserve part of their data space for parity information, allowing all data to be recovered if a single drive fails. The parity information takes up about one hard drive’s worth of space, so if you set up all four drives in the TeraStation as a RAID 5 array, your usable capacity will be about 3/4 of the total capacity of the TeraStation. RAID 5 is an excellent compromise between efficiency and security. If a single drive fails, no data is lost. After the damaged or defective drive is replaced, your TeraStation will automatically restore all data to the new drive and resume normal RAID 5 operation. This is how your TeraStation is set up out of the box.

Buffalo Technology recommends *RAID 5* for its excellent balance of efficiency and security.

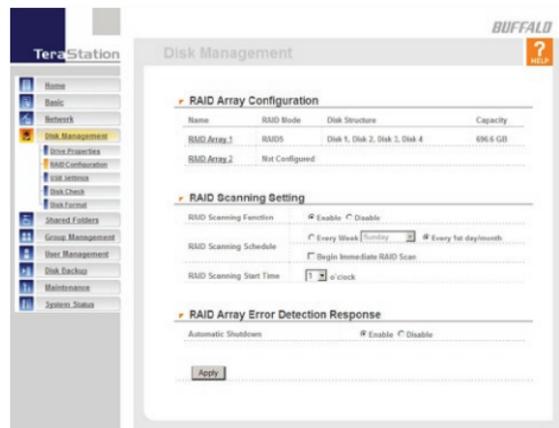
Disk Management (RAID Configuration)

This page shows your current RAID arrays. You may delete old arrays or create new ones by clicking on the underlined *RAID Array #* under *RAID Array Configuration*.

The *RAID Scanning Settings* set a specific time for the TeraStation to scan and inspect its RAID arrays. It is recommended to set a time where the TeraStations usage will be minimal (perhaps the middle of the night). TeraStation will be significantly slower while the RAID scan occurs. *Begin Immediate RAID Scan* specifies the TeraStation to run a RAID Scan immediately after pressing Apply.

You may also disable *RAID Array Error Detection Response* from this page. Normally, this is set to automatically shut down the RAID array when an error is detected. Though it is not recommended, you may disable that behavior by selecting *Disable*.

NOTE: TeraStation has four internal hard drives. Before creating a new RAID array, you may have to delete one or more pre-existing RAID Arrays to clear up the hard drives for your new one. This will destroy all data currently on the disks, so back up any important data before deleting RAID arrays. Whether you want to clear out an old array or create a new one, begin by clicking on the array's underlined *RAID Array #*, under *Name*.



Disk Management (RAID Configuration)

A configured RAID array may be deleted by pushing the *Delete RAID Array* button. This will free up all hard drives listed under Disk Structure.

The screenshot shows the TeraStation Disk Management interface. The left sidebar contains navigation options: Home, Basic, Network, Disk Management (selected), Drive Properties, RAID Configuration, USB Settings, Disk Check, Disk Format, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main panel displays the following information:

- RAID Settings**
 - RAID Array Name: RAID Array 1
 - RAID Mode: RAID5 RAID1 Spanning
- Disk Structure**

Disk	RAID Array	Capacity
<input checked="" type="checkbox"/> Disk 1(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
<input checked="" type="checkbox"/> Disk 2(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
<input checked="" type="checkbox"/> Disk 3(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
<input checked="" type="checkbox"/> Disk 4(WDC WD2500JB-22N)	RAID Array 1	232.9 GB

Buttons at the bottom: **Setup RAID Array** and **Cancel**.

The screenshot shows the TeraStation Disk Management interface. The left sidebar contains navigation options: Home, Basic, Network, Disk Management (selected), Drive Properties, RAID Configuration, USB Settings, Disk Check, Disk Format, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main panel displays the following information:

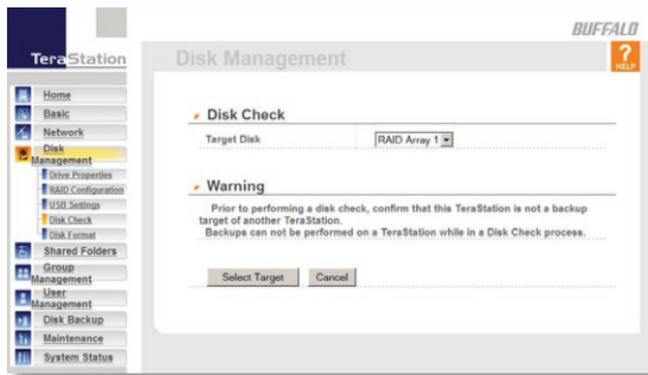
- RAID Settings**
 - RAID Array Name: RAID Array 1
 - RAID Mode: RAID5
- Disk Structure**

Disk	RAID Array	Capacity
Disk 1(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
Disk 2(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
Disk 3(WDC WD2500JB-22N)	RAID Array 1	232.9 GB
Disk 4(WDC WD2500JB-22N)	RAID Array 1	232.9 GB

Buttons at the bottom: **Delete RAID Array** and **Cancel**.

To configure an unconfigured array, put checks next to the hard disks you want included in the array (under *Disk Structure*) and choose your *RAID mode*. Click *Setup RAID Array* when ready. It may take several minutes to complete setting up the RAID array. When it's finished, a *Disk Scan* will run, this may take several hours to complete; performance will be slow during the Disk Scan.

Disk Management (Disk Check)



When *RAID Configuration* is done, you'll see this screen. To configure a new array, click on *RAID Array #* and go back to the bottom of page 31. To set up shares, turn to page 8.

Disk Management (RAID Configuration)

The screenshot shows the TeraStation Disk Management interface. On the left is a navigation menu with options: Home, Basic, Network, Disk Management (highlighted), Drive Properties, RAID Configuration, USB Settings, Disk Check, Disk Format, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main content area is titled 'Disk Management' and contains the following sections:

- RAID Array Configuration**: A table with columns for Name, RAID Mode, Disk Structure, and Capacity.

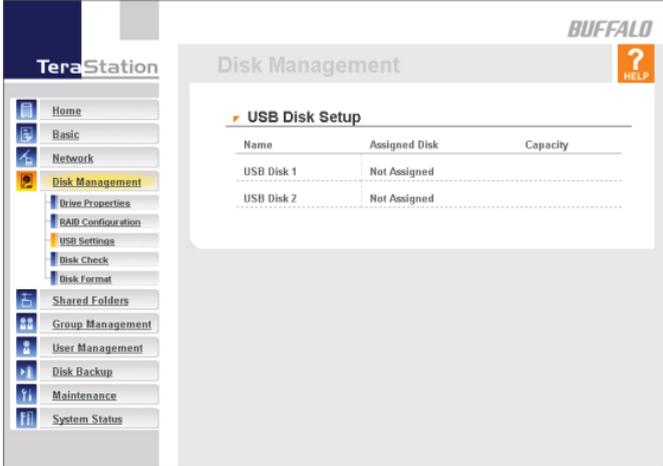
Name	RAID Mode	Disk Structure	Capacity
RAID Array 1	RAID5	Disk 1, Disk 2, Disk 3, Disk 4	696.6 GB
RAID Array 2	Not Configured		
- RAID Scanning Setting**:
 - RAID Scanning Function: Enable Disable
 - RAID Scanning Schedule: Every Week [Sunday] Every 1st day/month
 - Begin Immediate RAID Scan
 - RAID Scanning Start Time: [1] o'clock
- RAID Array Error Detection Response**:
 - Automatic Shutdown: Enable Disable

An 'Apply' button is located at the bottom of the settings area.

You'll see this screen when your new RAID Array is completely configured. Click on *Shared Folders* and turn to page 38 to begin setting up shares on your TeraStation.

Disk Management (USB Settings)

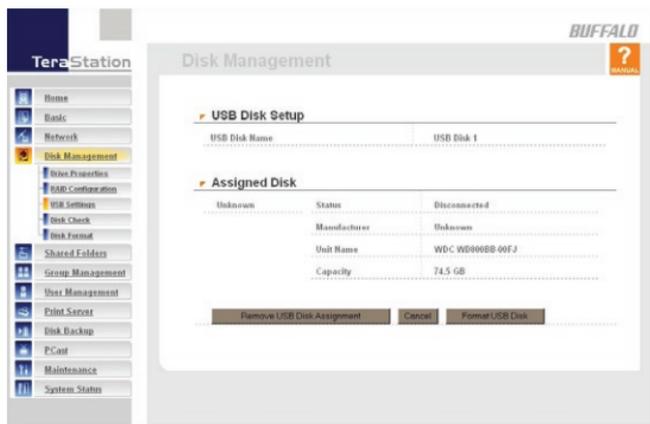
If you've plugged an external USB hard drive into one of the USB ports on your TeraStation, you may set it up from this page. Click on its name under *USB Disk Setup* to begin.



The screenshot shows the TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management (highlighted), Drive Properties, RAID Configuration, USB Settings (highlighted), Disk Check, Disk Format, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, and System Status. The main content area is titled "Disk Management" and features a "USB Disk Setup" section. This section contains a table with the following data:

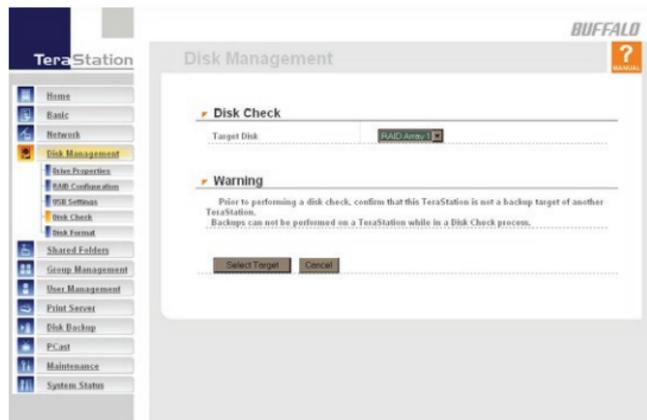
Name	Assigned Disk	Capacity
USB Disk 1	Not Assigned	
USB Disk 2	Not Assigned	

Disk Management (USB hard drive setup)



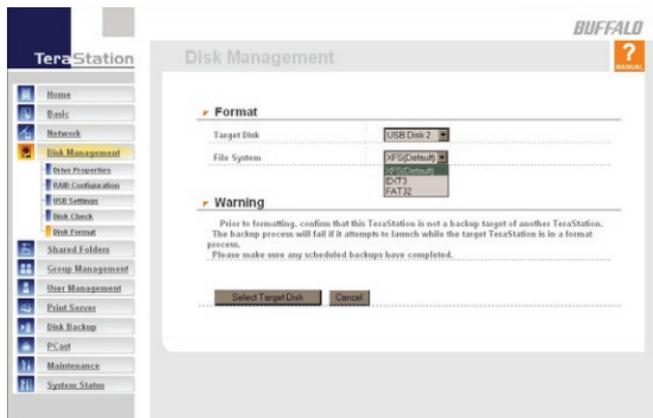
From here you can see your USB hard drive's setup information. If the hard drive's information isn't displayed properly, try restarting your USB hard drive and then restarting your TeraStation. Some USB hard drives must be reformatted from within TeraStation before they can be assigned shares. Press *Format USB Disk*, or choose *Disk Format* from the left-side menu, to begin reformatting your USB hard disk. Turn to page 37 for more information on reformatting disks. Turn to page 38 to set up shares on your USB hard drives.

Disk Management (Disk Check)



To initiate a comprehensive disk check on a hard drive or array of drives, select the hard drive or array that you want to check from the *Target Disk* dropbox and click the *Select Target* button. Performance will be slower while the disk check is running.

Disk Management (Disk Format)



To format a hard drive or array, select it from the *Target Disk* drop box. Choose the file system desired from the *File System* dropdown (internal drives can only be formatted with XFS). Note that FAT32 has a 2 gigabyte single file size limit. If you choose FAT32 for your file system, you will not be able to store single files larger than 2 gigabytes on the drive. Use of the XFS or EXT3 file systems is recommended. Press *Select Target Disk* when done.

Depending on the size of the target hard disk or array, a Disk Format may take several hours to complete. Performance will be slow during the disk format.

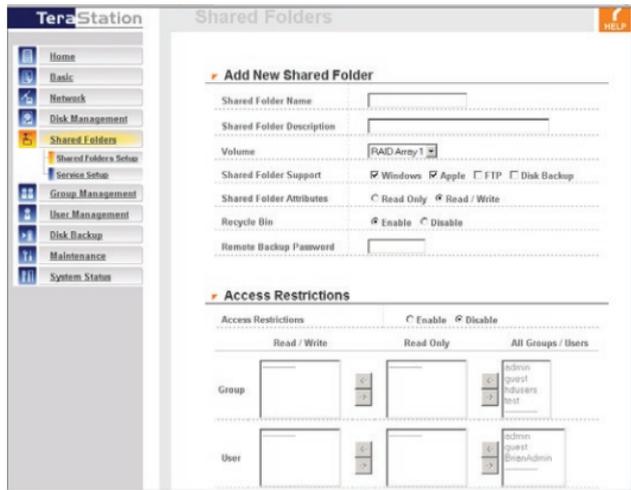
Shared Folders



To begin setting up shares on your TeraStation, select *Shared Folders* from the left side menu, and then click the *Add* button under *Shared Folders Setup*.

To delete a share or shares, check the checkbox next to the shares you'd like to delete, and press the *Delete* button. Deleting shares will remove the share and erase all of the files and folders inside that share.

Add a new Shared Folder



To add a new shared folder, enter a name for it in the *Shared Folder Name* box and choose which *Disk Space* it will reside in. You may also choose which operating systems and features the share will support by putting the appropriate checks next to *Shared Folder Support*, and whether the share supports the Recycle Bin by putting a selecting *Enable* or *Disable*. Enter a *Shared Folder Description* and a *Remote Backup Password* if desired. Click *Apply* to build the new shared folder.

Appletalk support is available for use with legacy Macs. Checking “Apple” by *Shared Folder Support* lets you use your TeraStation with older Macs, but gives you all of Appletalk’s limitations, including a 2GB maximum filesize

and a 32 character limit for filenames. For OS X 10.3.9 and later, leave “Apple” unchecked for best performance.

Remote Backup Password will set a password on this share for other TeraStations who want to use it as a remote backup target. This password will not affect users attempting to access the share; it only pertains to remote TeraStations trying to access this share for backup tasks.

Shared Folders (Access restrictions)

The screenshot shows the BUFFALO TeraStation web interface for configuring shared folders. The left sidebar contains navigation options like Home, Basic, Network, Disk Management, Shared Folders, Shared Folders Setup, Anonymous FTP Setup, Group Management, User Management, Print Servers, Disk Backup, PCast, Maintenance, and System Status. The main content area is titled 'Shared Folders' and features a 'BUFFALO' logo with a help icon. The 'Edit Shared Folder' section is active, showing details for a folder named 'buff'. Below this, the 'Access Restrictions' section is visible, with 'Enable' selected. It contains three columns: 'Writable', 'Read Only', and 'All Groups / Users'. Each column has a list of groups and users with arrows to move them between columns. The 'All Groups / Users' column currently contains 'Administrators', 'admin', 'guest', 'nobody', and 'root'. At the bottom of the 'Access Restrictions' section are 'Apply' and 'Cancel' buttons.

To use *Access Restrictions* for a share, select *Enable*.

Highlight groups or users in the *All Groups/ Users* column and use the left-pointing arrow buttons (located just to the left of each box) to move individual groups or users from the *All Groups/Users* column to the *Read Only* box (if you want to give them read access only) or all the way to the *Writable* box, if you want to give them full access to the share. Right-pointing arrows will move highlighted users or groups back to the right.

Click *Apply* when you have your groups and users in the appropriate boxes.

To set up new groups and users, see pages 42 and 43.

Shared Folders (Service Setup)

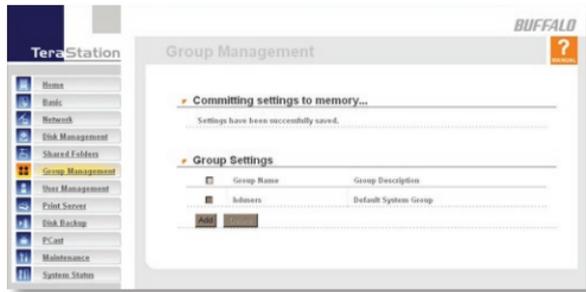


To allow FTP Access to TeraStation, choose *Enable* for *FTP Server*. To enable legacy AppleTalk support, choose *Enable* for *AppleTalk Protocol*.

FTP Server Info: Enabling the FTP Server will allow users to connect to shares via FTP protocol. Their username and password is used for their login credentials, and they will only have access to shares that have read-only or writeable access to on the TeraStation. The network administrator of your network may need to enable traffic on port 21 to the TeraStation for FTP to work over the Internet.

Click the *Apply* button to set up these services.

Group Management



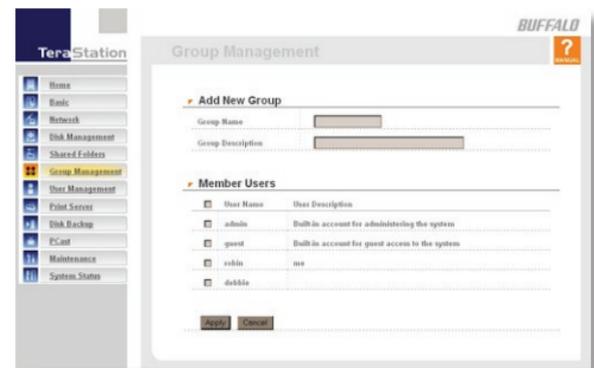
Groups allow for easier management of permissions in some networks, specifically networks with a lot of users in different departments.

To *Delete* a group, put a check next to its name and click *Delete*. To add a group to your TeraStation, click *Add*.

Add a name and a description to the *Add New Group* fields. Put checks next to each *Member User* that you want to be part of the group. Click *Apply* when your group is set up the way you want it.

Active Directory and Domain Groups are not shown here but are available under Share Management.

Members can be added or removed from a group at any time by editing the group. This is done by clicking on the Group name on the main Group Settings page.



User Management



TeraStation is preconfigured with two users, *admin* and *guest*, out of the box. The *admin* and *guest* user accounts cannot be deleted. To delete any other user, put a check next to their name and click *Delete*. To add a new user, click *Add*.

The *Add New User* dialog will appear. Enter a *User Name*, *Password*, and *User Description* for the new user and click the *Apply* button. If a user will be accessing the TeraStation from a Windows 95/98 computer, their password should be 15 characters or less. Mac OS 8 and OS 9 users' passwords should be 9 characters or less.

A Domain User List will be displayed if the TeraStation Pro is a member of a Domain or Active Directory environment.



User Management (changing passwords)



To change an account's password, click on the name of the account under *User Settings*. Note: if a user name and password are used to log into a user's windows computer or domain, the same user name and password should be used when creating the user's account on the TeraStation, or problems accessing shared folders may occur.

Enter the desired new password in both boxes and click *Apply*.



Troubleshooting Multiple Shares

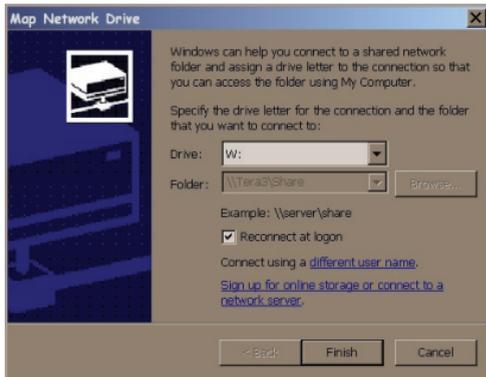


When accessing multiple shares to a Windows PC, you may see this error message.

This is caused by having multiple shares to the same resource using different login credentials.

The error occurs when connecting to at least one secure, restricted share. Due to a constraint in Microsoft Windows, only one set of login credentials can access or map drive letters for a network resource such as the TeraStation. As such, only one username and password can be used while mapping drives to a PC. If unsecure, unrestricted shares are mapped and then an attempt to map a secure, restricted share is made from the same PC, then this error will occur. To prevent this, you must create all mapped shares using the same login and password information. Please follow the steps on the next page to remedy this problem.

Mapping Multiple Shares



When mapping any share, select the *Connect using a different user name* option. A login and password prompt will appear. Use the username and password required by any secure, restricted shares for *all* shares. All mapped shares on a single PC must use the same username and password!



If only unrestricted shares are being mapped, then it's not necessary to set a username and password for shares. Multiple mapped drives to unrestricted shares can exist without a username or password as long as no restricted, secure shares are mapped. If an unrestricted share and a restricted share are being mapped or accessed, use the restricted username and password for the unrestricted share login by using the *Connect using a different user name* option. This will allow a Windows PC to access both shares without any problems.

Disk Backup

TeraStation **BUFFALO**

Disk Backup

Disk Backup

Job Number	Schedule	Status
Job 1		Not Created
Job 2		Not Created
Job 3		Not Created
Job 4		Not Created
Job 5		Not Created
Job 6		Not Created
Job 7		Not Created
Job 8		Not Created

Search for a Backup Destination by Password

Password to Search

To create a backup job, click on a *Job Number*. The *Edit Backup Job* dialog will appear.

Disk Backup (Edit Backup Job)

Edit Backup Job

Job Number: Job 1

Backup Job Schedule: Not Scheduled Immediately Every day Every week

Backup Date: Sunday

Backup Time: 0 Hour 00 Minute

Encrypted Transfer: Enable Disable

Compressed Transfer: Enable Disable

Overwrite Backup: Enable Disable

Differential Backups

Apply Cancel Clear Job

Backup Source and Destination Folders

Local Backup Shared Folder Destination Backup Shared Folder

Choose a source and destination folder for backup and click Select

media No Available Destination Backup Fold

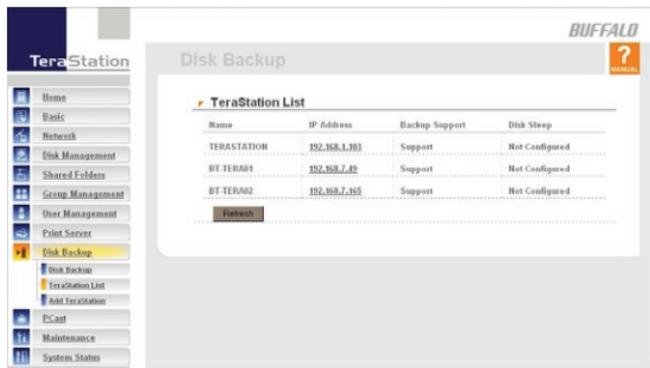
Select Remove

A *Backup Job* can run regularly on a daily or weekly schedule, or immediately by appropriate choices in the *Backup Job Schedule* field. *Date* and *Time* for the backup may be entered, and *Encryption* and *Compression* enabled or disabled. Enable *Overwrite Backup* to have each scheduled backup write over the previous backup, or *Differential Backups* to backup only files changed since the previous backup.

Select the folder to be backed up from the *Local Backup Shared Folder* dropdown, and the destination for the backup files from the *Destination Backup Shared Folder* dropdown. The destination folder may be on a USB drive attached to the TeraStation, or another TeraStation on the network. Click on *Select* to approve the backup targets.

Click the *Apply* button when your backup job is set up the way you want it, or *Clear Job* to stop a job from running again.

Disk Backup (TeraStation List)



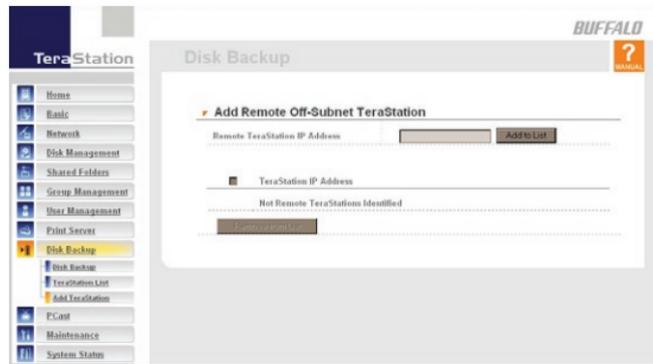
The screenshot shows the Buffalo TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Storage Management, User Management, Print Server, Disk Backup (highlighted), TeraStation List, Add TeraStation, PC-UI, Maintenance, and System Status. The main content area is titled "Disk Backup" and features a "TeraStation List" table. The table has four columns: Name, IP Address, Backup Support, and Disk Sleep. It lists three TeraStations: TERASTATION (IP: 192.168.1.103, Backup Support: Support, Disk Sleep: Not Configured), BT.TERA01 (IP: 192.168.7.49, Backup Support: Support, Disk Sleep: Not Configured), and BT.TERA02 (IP: 192.168.7.165, Backup Support: Support, Disk Sleep: Not Configured). A "Refresh" button is located below the table. The Buffalo logo and a help icon are visible in the top right corner of the interface.

Name	IP Address	Backup Support	Disk Sleep
TERASTATION	192.168.1.103	Support	Not Configured
BT.TERA01	192.168.7.49	Support	Not Configured
BT.TERA02	192.168.7.165	Support	Not Configured

The TeraStation list shows other TeraStations in your network that you can configure network backups to.

Press *Refresh* to get a list of TeraStations on your network.

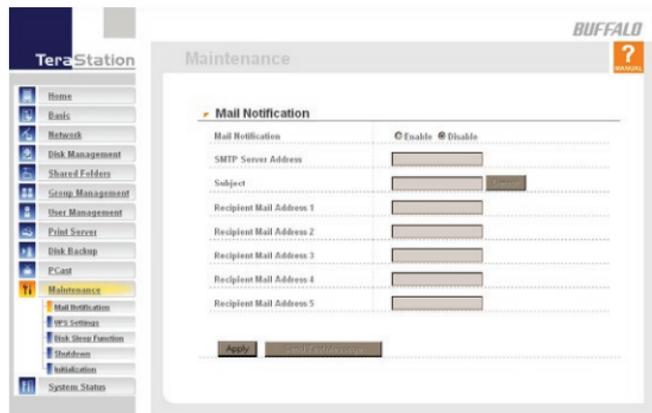
Disk Backup (Add TeraStation)



To add a remote TeraStation to your network, enter its numerical IP Address in the *Remote TeraStation IP Address* field and click the *Add to List* button. For remote TeraStation backups, make sure both firewalls are configured to allow traffic in and out of their networks.

Note: Disk Backups between two TeraStations use port 8873 for encrypted backups and port 873 for backups with no encryption.

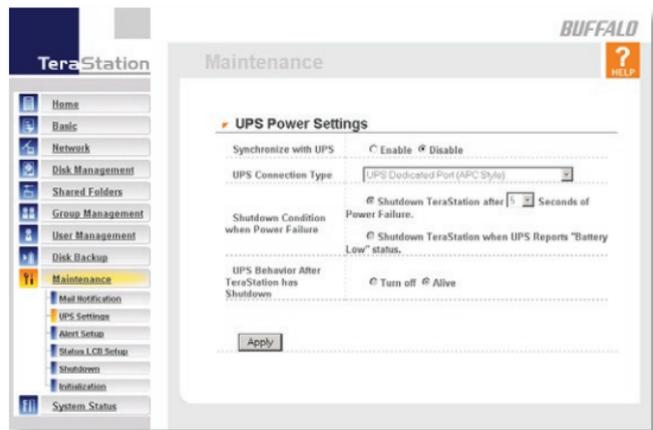
Maintenance (Notification)



If your TeraStation is remotely managed, you may choose to receive nightly status reports and be notified of any disk events by email. To set this up, enable *Mail Notification* and enter the IP Address of your SMTP server* in the *SMTP Server Address* field. Select a *Subject* line for the emails (i.e. “TeraStation Status Report”) and enter the email address of each person you want to receive notification emails into a *Recipient Mail Address* field.

* SMTP server must be an *open* type server. Currently, there’s no provision for entering a username or password.

Maintenance (UPS Settings)



You may enable *Synchronize with UPS* and *UPS Shutdown Conditions* from this page. Consult your Uninterruptable Power Supply's documentation for further information about setting up your UPS system.

Buffalo Technology recommends the use of APC SmartUPS Serial Uninterruptable Power Supplies. Other UPSs may use different pin configurations. Compatibility cannot be guaranteed with other UPSs. See page 53 for more on the TeraStation's UPS serial port.

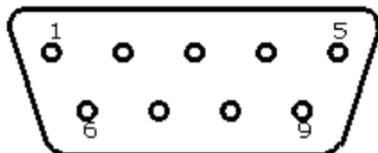
Maintenance (UPS Settings)

UPS / Maintenance port

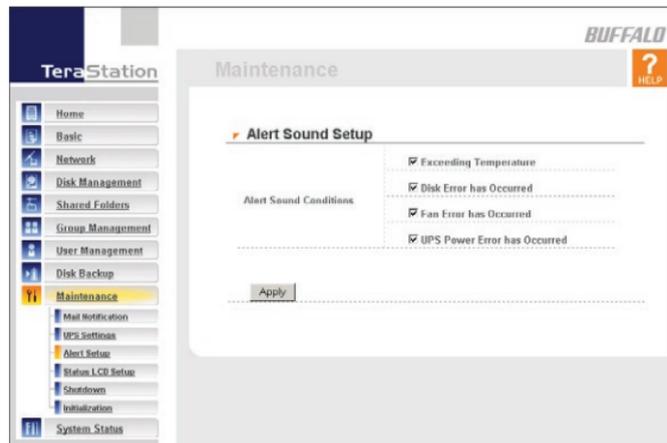
This is TeraStation's serial port pin assignment for serial UPS products.

Connector Pin Assignment.

Pin	Signal	Description
1	NC	NC
2	RXD	APC_Line_Fail
3	TXD	APC_UPS_Shutdown
4	NC	OMR_UPS_Shutdown
5	GND	GND
6	NC	NC
7	NC	+12V
8	NC	OMR_Line_Fail
9	NC	NC

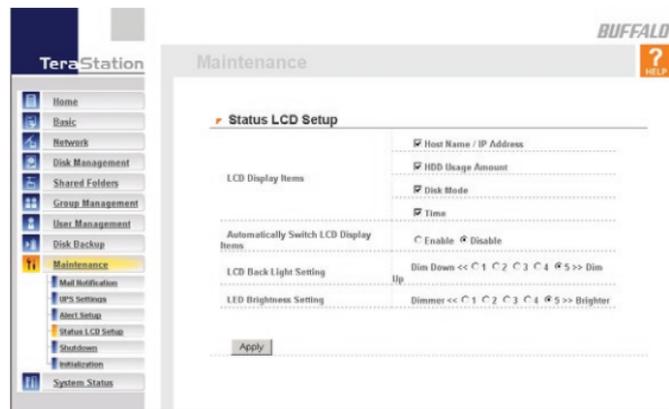


Maintenance (Alert Settings)



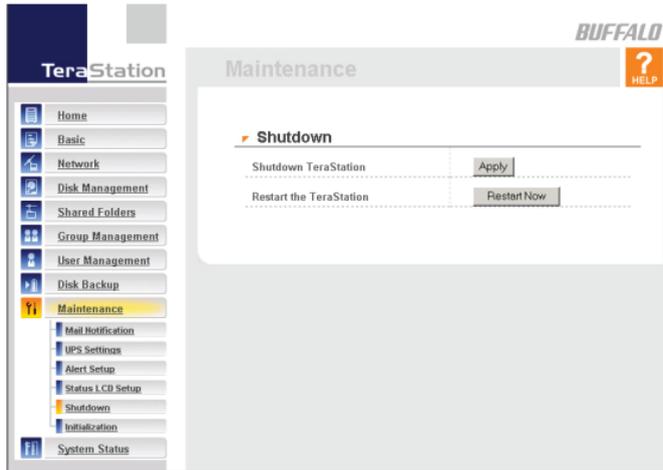
Alerts can be configured on the TeraStation to make audible noises when a problem is detected. Along with the audible noise, alert emails will be sent out if *Mail Notification* was properly configured. Please select the features you would like to receive an audible sound alert from and then press the *Apply* button.

Maintenance (Status LCD)



The Status LCD Setup allows configuration for the LCD display on the front of TeraStation. Please select the type of information that the front panel should display from the *LCD Display Items*. *Automatically Switch LCD Items* tells the TeraStation to cycle through the selected display items every 10 seconds. Disabling this feature means the LCD display does not cycle, and it will stay on the same display item until the *Display* button on the front of TeraStation is pressed. The LCD screen and green LED buttons brightness can be controlled via their respective settings. Press the *Apply* button once all of the settings have been configured.

Maintenance (Shutdown)



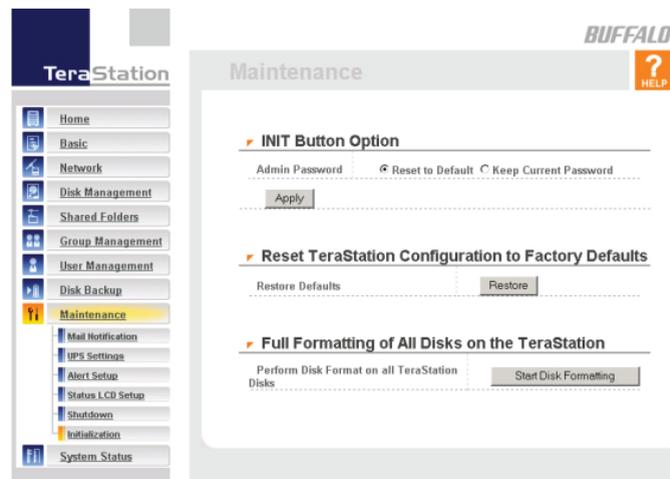
From the *Shutdown* page, press *Apply* to shutdown TeraStation. This has the same function as holding down the power button on the front of TeraStation, but may be done remotely. Turning on the TeraStation after a shutdown requires a physical button push on the front of TeraStation. The *Restart Now* button simply reboots the TeraStation, bringing it back to functionality after about 120 seconds.

Maintenance (Initialization)

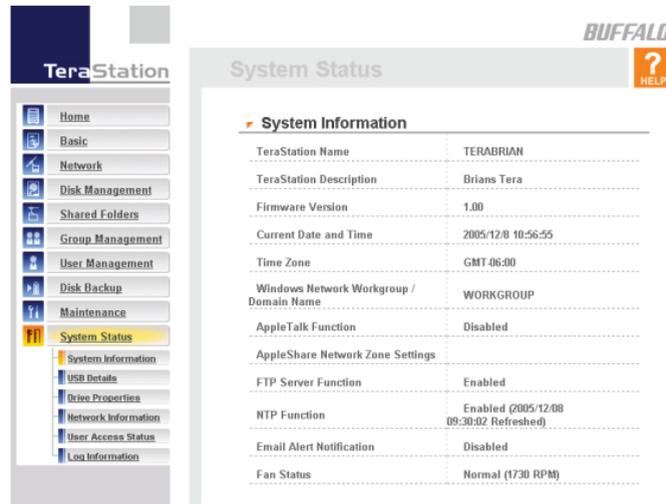
Initialization is a reset procedure that restores all settings back to the default, out of box, configuration. All configuration, users, groups, and backup jobs are lost, but actual data and shares on the hard are NOT lost. If you want all data to be erased, reformat the drive.

Specify whether the TeraStation shall keep its administrator password after a initialization or whether the password should be reset to the default password (default password is *password*). Press the *Apply* button once you make the selection.

Press the *Restore* button to begin the initialization process; this will restore all settings to factory defaults but will NOT erase the data on the hard drives. *Start Disk Formatting* begins a complete disk format that will erase all information on the TeraStation's internal hard drives. This cannot be undone.



System Status (System Information)



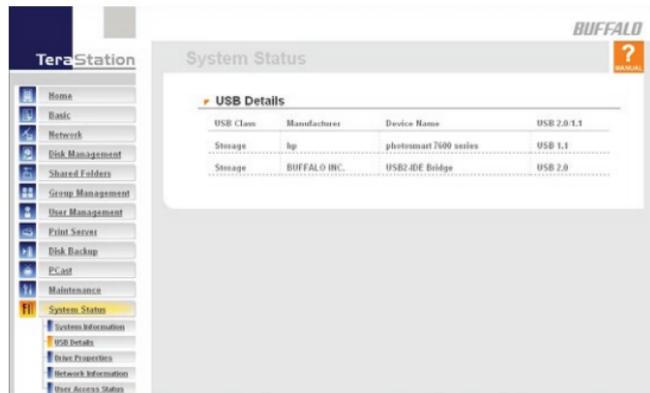
The screenshot displays the TeraStation web interface. On the left is a navigation menu with options: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, System Status (highlighted), System Information, USB Details, Drive Properties, Network Information, User Access Status, and Log Information. The main content area is titled 'System Status' and features a 'BUFFALO' logo and a 'HELP' button. Below the title is a section for 'System Information' containing a table of system details.

System Information	
TeraStation Name	TERABRIAN
TeraStation Description	Brians Tera
Firmware Version	1.00
Current Date and Time	2005/12/8 10:56:55
Time Zone	GMT-06:00
Windows Network Workgroup / Domain Name	WORKGROUP
AppleTalk Function	Disabled
AppleShare Network Zone Settings	
FTP Server Function	Enabled
NTP Function	Enabled (2005/12/08 09:30:02 Refreshed)
Email Alert Notification	Disabled
Fan Status	Normal (1730 RPM)

This page shows you the System Information for your TeraStation.

Firmware updates are occasionally available from www.buffalotech.com for the TeraStation Pro. These must be executed from a Windows PC on the same network. Your router, switch, or hub should pass through ports 8873 and 22939 for this to work (most do).

System Status (USB Details)



The screenshot displays the Buffalo TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, and System Status (highlighted). Under System Status, there are sub-links for System Information, USB Details (selected), Device Properties, Network Information, and User Access Status. The main content area is titled 'System Status' and features a 'BUFFALO' logo and a 'HELP' icon. Below this, the 'USB Details' section is expanded, showing a table of connected USB devices.

USB Class	Manufacturer	Device Name	USB 2.0 1.1
Storage	lg	plottomart 7000 series	USB 1.1
Storage	BUFFALO INC.	USB2-IDE Bridge	USB 2.0

This page shows you details on USB hard drives and UPSs plugged into your TeraStation.

System Status (Drive Properties)

This page shows you the properties of all hard drives and RAID arrays in and attached to your TeraStation.

The screenshot displays the 'System Status' page for a TeraStation. The left sidebar contains a navigation menu with 'System Status' selected. The main content area is titled 'Internal and External Drive Properties' and is divided into sections for RAID arrays and individual drives.

RAID Array 1 Properties:

RAID Array 1	Status	Checking (9.2% Completed)
	Size	2518 Mbytes
	RAID mode	RAID5
	Disk Structure	Disk 1 Disk 2 Disk 3 Disk 4
	Total Capacity	230,182,000 Mbytes
	Amount In Use	4,000 Mbytes
	Percentage In Use	1.74%
	File Format	NTFS

RAID Array 2 Properties:

RAID Array 2	Status	Not Configured
--------------	--------	----------------

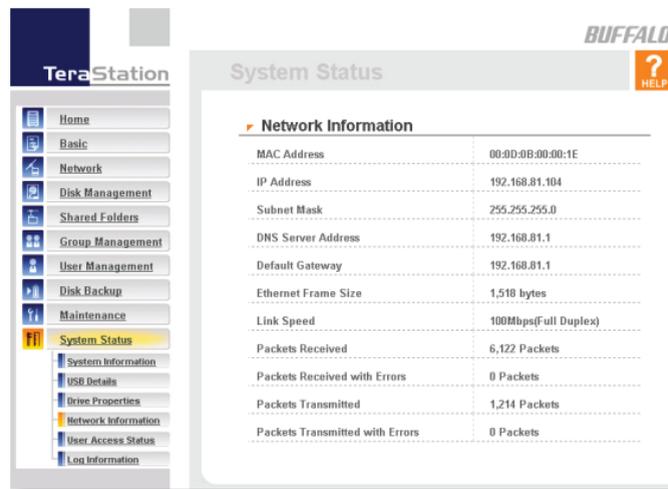
Individual Drive Information:

Drive	Status	RAID Array
Disk 1	OK	RAID Array 1
	Serial Number	WD-W60000002210000
	Total Capacity	231,081,984 Mbytes
Disk 2	OK	RAID Array 1
	Serial Number	WD-W60000002210000
	Total Capacity	231,081,984 Mbytes
Disk 3	OK	RAID Array 1
	Serial Number	WD-W60000002210000
	Total Capacity	231,081,984 Mbytes
Disk 4	OK	RAID Array 1
	Serial Number	WD-W60000002210000
	Total Capacity	231,081,984 Mbytes

External Drive Information:

Drive	Manufacturer	Model Name
USB Disk 1	Hitachi	HDS5K6
	Serial Number	0100000000000000
	Total Capacity	500,000,000 Mbytes
	File Format	Not Detected
USB Disk 2	Hitachi	HDS5K6
	Serial Number	0100000000000000
	Total Capacity	Not Detected

System Status (Network Information)



The screenshot displays the Buffalo TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, System Status (highlighted in yellow), System Information, USB Details, Drive Properties, Network Information, User Access Status, and Log Information. The main content area is titled 'System Status' and features a 'HELP' button. Under the 'Network Information' section, the following details are listed:

Network Information	
MAC Address	00:00:08:00:00:1E
IP Address	192.168.81.104
Subnet Mask	255.255.255.0
DNS Server Address	192.168.81.1
Default Gateway	192.168.81.1
Ethernet Frame Size	1,518 bytes
Link Speed	100Mbps(Full Duplex)
Packets Received	6,122 Packets
Packets Received with Errors	0 Packets
Packets Transmitted	1,214 Packets
Packets Transmitted with Errors	0 Packets

This page shows you the System Information for your network connection.

User Access Status

The screenshot displays the TeraStation web interface. On the left is a navigation menu with options like Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, System Status (highlighted), System Information, USB Details, User Profiles, Network Information, and User Access Status. The main content area is titled 'System Status' and features a 'BUFFALO' logo and a help icon. Under the 'User Access Status' section, there are two expandable categories: 'Windows Access User' and 'FTP Access User'. Each category has a table with columns for 'User', 'PC Name', and 'IP Address'. Both tables currently show '(Disconnected)' in the User column, indicating no active users.

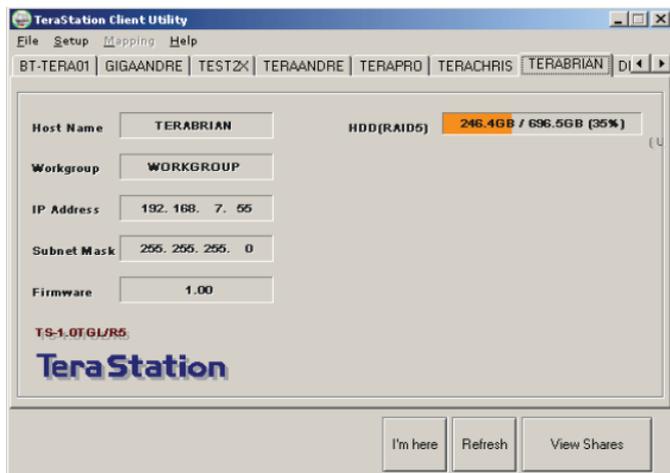
This page shows you the current status of all active users on the TeraStation. It also shows users connected remotely via the FTP Server.

Log Information

The screenshot shows the TeraStation System Status interface. On the left is a navigation menu with options: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, System Status (highlighted), System Information, USB Details, Drive Properties, Network Information, User Access Status, and Log Information. The main content area is titled 'System Status' and includes a 'System Log' section. This section has a dropdown menu set to 'System Log', a 'Log Order' dropdown set to 'From the Newest', and a 'Number of Lines' dropdown set to '50'. Below these are 'Select', 'Clear', and 'Save' buttons. The log entries are displayed as a list of messages, each starting with a timestamp and a message ID, followed by a description of the event and a 'View page from User admin' link. The messages are:

- 1Case(s) 50Case(s) (All65Case(s))
- << << 1 2 >> >>
- Dec 8 11:00:11 TERABRIAN terastation[22778]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:59:41 TERABRIAN terastation[22768]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:59:36 TERABRIAN terastation[22070]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:58:08 TERABRIAN terastation[24460]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:58:00 TERABRIAN terastation[22303]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:57:44 TERABRIAN terastation[22340]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:56:54 TERABRIAN terastation[22220]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:51:48 TERABRIAN terastation[10500]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:49:20 TERABRIAN terastation[21301]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:44:30 TERABRIAN terastation[20730]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:42:50 TERABRIAN terastation[20403]: [Msg] View page from User admin, RemoteAddr:192.168.81.3, RemoteHost:(unknown)
- Dec 8 10:36:25 TERABRIAN terastation[10569]: [Msg] View page from User admin,

This page displays system log information. Choose from the available variables and press the *Select* button to show you the logs for the variables you selected.



This is the *TeraStation Client Utility*. Installed on your PC, it allows you to access each of the TeraStations on your network. Click *Refresh List* to get tabs for each of your TeraStations. Each tab shows the Host Name, Workgroup, IP Address, and Subnet Mask of the associated TeraStation, as well as the version of firmware it's running.

With a TeraStation's tab selected, you can click on the *View Shares* button to go directly to its root share. Clicking the *Setup* pulldown menu and selecting *Browser Management* takes you to the browser management tool that we began exploring on page 24. And clicking *Setup* and choosing *Modify IP Address* takes you to the following screen . . .

IP Address Setup



The screenshot shows a dialog box titled "IP Address Setup". At the top, there is a checkbox labeled "Acquire IP Address Automatically via DHCP" which is currently unchecked. Below this, there is a section titled "New IP Address" containing two rows of input fields. The first row is labeled "IP Address" and contains four fields with the values "192", "168", "1", and an empty field. The second row is labeled "Subnet Mask" and contains four fields with the values "255", "255", "255", and "0". Below these fields is a text box labeled "Administrator Password". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Here, you may enter your *IP Address* and *Subnet Mask* manually, or enable your TeraStation to acquire them automatically from a DHCP server. You'll need the administrator password to use this screen. Press *OK* when you're done.

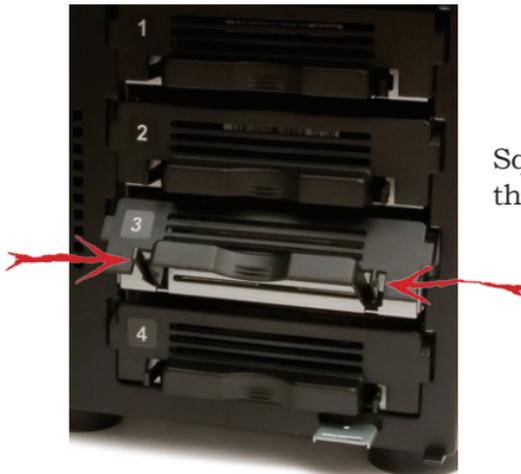
If TeraStation encounters a disk error, it will be reported in the *TeraStation status* on the top of any of the Web-Based configuration screens. Run a Disk Scan in the event of this error. If that does not resolve the problem, a *format* is recommended. Formatting the drive will delete all of the data on it, so back up any data you can before formatting. Finally, if none of the above solutions help, then please contact Technical Support (see pages 73 and 74 for Technical Support contact information).

DIAG LCD Codes:

Error Code	Description	Alert Sound
E00	MPU error: Main MPU is not responding.	A
E01	Error on DRAM DATA LIN	A
E02	Error on DRAM ADDRESS LINE	A
E03	Error on RTC CHIP	A
E04	Failed to load kernel (FLASH error)	A
E10	UPS AC LINE FAIL Error	B
E11	FAN Error: Fan rotation speed is low or fan is stopped.	B
E12	Cooling Error: Cooling by fan cannot catch up.	B
E13	Error has occurred on RAID Array x.	B
E14	Cannot mount RAID Array x.	B
E15	- (Not Used)	
E16	Cannot found HDDx.	B
E17	Cannot communicate with RTC chip(IC12).	A
E18	Cannot communicate with SATA chip(IC1).	A
E19	Cannot communicate with SATA chip 2(IC2)	A
E20	Cannot communicate with USB chip(IC5)	A
E21	Cannot communicate with Ethernet chip(IC13)	A
E22	Cannot mount HDDx	B
E23	HDDx faulty (HDDx is excluded from raid because of errors)	B

Replacing a Hard Drive

Turn the key counter-clockwise to open drive door.



Squeeze the tabs gently and swing the tray latch upward.

The hard drive tray will now slide out.

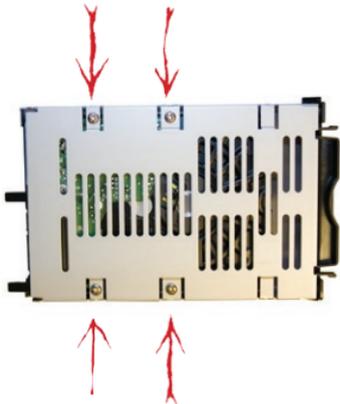


Lower the drive carefully to the work surface.



Gently push down on the two tabs to release the plug.

Pull the plug straight out to remove the drive.



To remove the hard drive from its cage, set the assembly on a soft surface and remove these four screws.



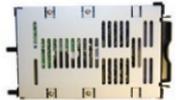
Install a new hard drive by doing the same steps in reverse order:

Begin by screwing the new hard drive into the cage.

Plug the power/data connector into the hard drive.

Slide the hard drive cage back into the TeraStation.

Press the latch down to lock the hard drive cage in place.



Technical Specifications

LAN Standards:	IEEE 802.3u 100BASE-TX; IEEE 802.3 10BASE-T
Transmission Types:	1000Mbps/100Mbps/10Mbps; 100BASE-TX 4B/5B, MLT-3;10BASE-T Manchester Coding
Access Media:	CSMA/CD
Media Interface:	RJ-45
USB Standard:	USB 2.0 Hi-Speed (HS) Full-Speed (FS) Low-Speed (LS)
USB Connector:	USB A Connector (2)
Data Transmission Speed:	Max: 480 Mbps (HS Mode) Max: 12 Mbps (FS Mode)
UPS:	UPS Compatible (Serial/USB connection)
Power Consumption:	~56W (Varies based on size)
Dimensions:	6.7" x 9.3" x 12.2" (170 x 235 x 310 mm.)
Weight:	~15.8 lb. (7.2 kg.) (Weight varies based on size)
Operating Environment:	32° - 95° F; 20-80% non-condensing

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8:30am-5:30pm CST

Direct: 512-794-8533 | **Toll-free:** 800-456-9799 | **Fax:** 512-794-8520 | **Email:** sales@buffalotech.com

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Email: *helpdesk@buffalo-technology.ie*

*Calls cost 8.5p per minute

Technical Support Operating Hours

Monday - Friday (GMT)

9:00 AM - 6:00 PM Monday-Thursday

9:00 AM - 4:30 PM Friday

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