Turbo NAS

Troubleshooting Guide

This guide provides the information you may need to troubleshoot the possible hardware and software issues of QNAP Turbo NAS products.　The information contained herein applies to Turbo NAS models running firmware version 3.0.0 or later.

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Back up your system periodically to avoid any potential data loss.　QNAP disclaims any responsibility of all sorts of data loss or recovery.

Should you return any components of the NAS package for refund or maintenance, make sure they are carefully packed for shipping.　Any form of damages due to improper packaging will not be compensated.

Regulatory Notice

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules.   These limits are designed to provide reasonable protection against harmful interference in a residential installation.   This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in particular installation.   If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Shielded interface cables, if any, must be used in order to comply with the emission limits.

CE NOTICE

Class B only.

Table of Contents

1. General Information

You may visit the QNAP website or the following links for the latest compatibility information, firmware, technical guides, and other product information of the Turbo NAS.

Hardware and software compatibility information:

http://www.qnap.com/pro_compatibility.asp

Latest firmware of the NAS products:

http://www.qnap.com/download.asp

Application notes (technical guides and how-tos):

http://www.qnap.com/pro_features.asp

Online FAQ and QNAP Wiki:

http://www.qnap.com/faq.asp

http://wiki.qnap.com/wiki/Main_Page

2. Safety Information and Precautions

1. The NAS can operate normally in the temperature of 0ºC–40ºC and relative humidity of 0%–95%. Please make sure the environment is well-ventilated.
2. The power cord and devices connected to the NAS must provide correct supply voltage (100W, 90–264V).
3. Do not place the NAS in direct sunlight or near chemicals. Make sure the temperature and humidity of the environment are in optimized level.
4. Unplug the power cord and all the connected cables before cleaning. Wipe the NAS with a dry towel. Do not use chemical or aerosol to clean the NAS.
5. Do not place any objects on the NAS for the server's normal operation and to avoid overheat.
6. Use the flat head screws in the product package to lock the hard disk drives (HDD) in the NAS when installing the HDD for proper operation.
7. Do not place the NAS near any liquid.
8. Do not place the NAS on any uneven surface to avoid falling off and damage.
9. Make sure the voltage is correct in your location when using the NAS. If you are not sure, please contact the distributor or the local power supply company.
10. Do not place any object on the power cord.
11. Do not attempt to repair your NAS in any occasions. Improper disassembly of the product may expose you to electric shock or other risks. For any enquiries, please contact the distributor.
12. The chassis (also known as rack mount) NAS models should only be installed in the server room and maintained by the authorized server manager or IT administrator. The server room is locked by key or keycard access and only certified staff is allowed to enter the server room.

⚠️ **Warning:**

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Do NOT touch the fan inside the system to avoid serious injuries.

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3. Troubleshoot Hardware Issues

Q1. How to check if the NAS is a faulty unit?

A. If your NAS is not responding properly, please do the following to check if the NAS is a faulty unit.

Turn on the NAS without hard disk drives.   You will hear the first beep upon pressing the power button, and another beep about 2 minutes later.   If you did not hear the second beep, there might be a hardware problem with the NAS.   Please contact your local distributor/reseller technical support.

Note: Make sure the alarm buzzer option for system operations (startup, shutdown, and firmware upgrade) has been enabled in "System Administration" > "Hardware" on the administration page of the NAS.

Caution: The NAS must be repaired by professional technicians, do not try to repair the server yourself.

Q2. The USB one touch copy button does not work.   What should I do?

A. Please check the following:

1. The one touch copy button only works for the front USB port.   Make sure your external USB device is connected to the front USB port of the NAS.
2. Login the NAS as an administrator.   Go to "Backup" > "USB One Touch Copy" and configure the backup settings.
3. Check that the connected storage device is supported:
   http://www.qnap.com/pro_compatibility.asp

Q3. What should I do if the system fan, LCD panel, or other hardware components are not working properly?

A. Do NOT repair or replace the hardware components yourself.   Please contact your local reseller or distributor for repair or replacement services.

4. Chassis Replacement

Q1. What should I do if the chassis of the NAS is damaged?

If the chassis of your NAS is damaged, you may need to purchase a new chassis from an authorized distributor/reseller of QNAP and install the original hard disk drives to the new chassis. All the old disk data will be retained. Follow the steps below for chassis replacement.

1. Make sure the hard disk drives on the NAS are not damaged.
2. Prepare a new chassis of the same NAS model. Please contact your local distributor for the purchase information.
3. Turn off the NAS (damaged chassis).
4. Unplug the hard disk drives (with the original drive trays) from the original NAS (damaged chassis).
5. Install the hard disk drives (with the drive trays) to the new chassis according to the original hard drive order.
6. Turn on the NAS (new chassis) and check if it works properly.

Caution: The NAS must be repaired by professional technicians, do not try to repair the server yourself.

5. Troubleshoot Hard Disk Drive Issues

Q1. A hard disk drive error is shown on the NAS.   What should I do?

A. Check if the following logs are shown.

1. The message "disk drive x failed or is unplugged" is shown on "System Administration" > "System Logs" (requires admin access to the web administration page of the NAS).

2. The message "disk drive x failed or is unplugged" is shown on the LCD panel (if available).

3. A disk error message is shown on "Disk Management" > "Volume Management", for example, "no disk".

Solution:

1. RAID 1, RAID 5, RAID 6: Turn off the NAS and replace the failed hard disk drive(s) with new one(s).   Turn on the NAS after installing the new hard disk drive(s).   The NAS will perform RAID rebuilding.   If RAID rebuilding is successful, the NAS will run properly again and the RAID data protection will be active.

2. RAID 10: If only one hard drive fails or two non-adjacent hard drives fail, turn off the NAS and replace the failed hard disk drive(s) with new one(s).   Turn on the NAS after installing the new hard disk drive(s).   The NAS will perform RAID rebuilding.   If RAID rebuilding is successful, the NAS will run properly again and the RAID data protection will be active.   If two adjacent hard drives fail in a RAID 10 volume, the data cannot be recovered anymore.   Please replace the hard drives and create a new disk volume with the new hard drives.

> **Note:** It is recommended to replace the failed hard disk drives with new ones of the same brand and same model.
>
> **The RAID configuration cannot be rebuilt if the number of failed hard drives has exceeded the maximum limit.   The disk data will be lost in such case.**

3. Single disk volume, JBOD, RAID 0: Turn off the NAS; replace the damaged hard disk drive(s) and then restart the NAS.   Upon successful system startup, login the NAS as an administrator.   Go to "Disk Management" > "Volume Management" to configure the disk volume.   The newly installed hard disk drive(s) will be formatted and all the disk data will be cleared.

> **Note:** The data on the damaged hard disk drive(s) cannot be recovered.

Replacing the failed hard drive:

1. Take out the disk tray.
2. Remove the hard disk drive from the disk tray. Check if the hard disk drive is damaged. (Unplug the possible damaged hard disk drive and insert it to another NAS or machine (if any) to check if the hard disk drive can be read.)
3. Replace the damaged hard disk drive with a new one.
4. Check the master and slave settings of the hard disk drive.

Disk checking after replacing the failed hard disk drive:

1. Turn on the NAS.
2. Make sure no disk error message is shown on the LCD panel (if available).
3. Login the NAS as an administrator.
4. Check the disk status on "Disk Management" > "Volume Management". If the message "Not initialized" is shown, the hard disk drive is installed correctly.
5. To configure the new hard disk drive as single disk volume, initialize the hard disk drive by the web-based interface.
6. If the disk volume is configured as RAID 1/5/6, the NAS will rebuild the RAID configuration upon successful restart. Make sure the NAS works properly and no errors are shown after RAID rebuilding.

Q2. The NAS cannot detect the hard disk drive(s) and the web GUI says that the "hard disk failed or unplugged".

Possible reasons:

1. The hard disk drive is not supported. Please see the compatibility list:
   http://www.qnap.com/pro_compatibility.asp
2. The hard disk drive may be damaged. Please try a different hard disk drive.
3. The drive bay may be damaged. Please insert the hard drive into another bay (if any) and try again.

6. Troubleshoot Power Supply Issues

Q. The NAS did not power on after I pressed the power button.

A. Make sure the power cable, power adaptor, and the power supply unit are connected correctly and the power supply is normal. If the problem persists, contact your local reseller or distributor for repair or replacement service.

Q. I have installed two power supply units on the NAS (available on some rack mount models). Why no error message was shown when I plugged out one of the power supply unit?

A. Please check if the redundant power supply mode is enabled on "System Administration" > "Hardware". When this function is enabled, the NAS will start to record the error messages about the power supply units on "System Logs".

Q. What is the use of the red button on the power supply unit (NAS with redundant power supply units only)?

A. The red button is used for resetting the power supply unit when an error occurs. When redundant power supply mode is enabled on "System Administration" > "Hardware" and the power supply unit is not functioning properly, press the red button to reset the power supply unit. If the error persists, contact your local reseller or distributor for technical support.

7. Troubleshoot Software Issues

Q. I have connected the NAS and my PC to the same subnet.   However, the Finder cannot find my NAS.

A. Make sure your NAS and the PC are connected to the network correctly.   If you are using Windows XP SP1, please do the following:

1. Go to "Control Panel" > "Network and Internet Connections" in the Category view or go to "Network Settings" > "Control Panel" in the Classic view.
2. Click "Network Connections" and double click the icon for your network connection.
3. Click "Properties" and select "Advanced" tab.
4. Uncheck the option "Internet Connection Firewall".
5. Install the Finder and try again.

If you are using Windows XP SP2, click "Unblock" when the Windows Firewall dialog appears to run the Finder.   Windows 7 users can click "Allow access" to unblock the Finder from Windows Firewall.   If the problem persists, check if other anti-virus programs or firewalls are running; disable them and run the Finder again.

If you still cannot access your NAS by the Finder or by entering the NAS IP in the web browser directly, please do the following:

Step 1. Check your LAN cable connection and the LAN LED is flashing.

Step 2. Check if the Status LED (same as the Power LED for some models) glows green. If the Status/Power LED flashes red or red and green alternatively, the NAS is not initialized or the hard drive(s) are not ready.

Step 3. Reset the NAS by pressing the reset button for 3–4 seconds.   This will clear the administrator password and network settings (DHCP will be used and the default user name and password is: admin/admin).
After two beeps on the system startup, run the Finder again to find your NAS or open a web browser and enter http://NAS_IP:8080.   (If your NAS is connected to your PC directly, the NAS IP is 169.254.100.100:8080).

Step 4. If you still cannot access the NAS after Step 3, please do the following.
1. Turn off the NAS.
2. Take out all the hard disk drives.   Restart the NAS.

You will hear a beep after pressing the power button, followed by 2 beeps 2 minutes later. If you cannot hear the two beeps, the NAS may be defective.　Please contact your local reseller or distributor for repair or replacement service.

8. Firmware Recovery Guide for ARM-based NAS Models

Applied QNAP NAS models: TS-110, TS-112, TS-119, TS-210, TS-212, TS-219, TS-219P, TS-410, TS-410U, TS-412, TS-412U, TS-419P, TS-419U, TS-419U+, TS-119P+, TS-219P+, and TS-419P+.

This firmware recovery guide is intended for users who encounter system startup failure due to incomplete or unsuccessful firmware update caused by power outage or network disconnection during the process.   To verify that this guide applies to your NAS, follow the steps below:

1. Power off the NAS.
2. Remove all the hard drives.
3. Power on the NAS.
4. Wait for ten seconds and check if you hear a short beep.
5. After the short beep, wait for two minutes to check if you hear a long beep.
6. If you only hear a short beep or do not hear any beep, follow the instructions of this guide to recover your NAS.

Follow the steps below to recover the NAS.

1.   Download the live CD ISO image from the following links:

   a. TS-110, TS-119, TS-210, TS-219, TS-219P

   ftp://csdread:csdread@ftp.qnap.com.tw/NAS/live_cd/Flash_Reburn_live-cd-2009-09-24(TS-110&119&210&219&219P).iso

   b. 1-bay, 2-bay, or 4-bay NAS models

   ftp://csdread:csdread@ftp.qnap.com.tw/NAS/live_cd/Flash_Reburn_live-cd-2009-12-09(TS-410&410U&419P&419U).iso

   c. TS-119P+, TS-219P+, or TS-419P+

   http://us1.qnap.com/Storage/tsd/live-cd-2010-10-08.(TS-x19P+_Recovery).iso

   d. TS-112/212/412/412U/419U/419U+

   http://us1.qnap.com/Storage/tsd/live-cd-2011-03-02(TS-x12_412U_419U_419U+).iso

> **Note:** Please use the ISO file (a) for 1-bay and 2-bay NAS models
> (TS-110/210/119/219/219P).   If you failed to recover the NAS with the ISO file (a), please
> try the ISO file (b).

2. Burn the ISO file to a CD.
3. Insert the CD to a PC and boot up from the CD.
4. When the login prompt is shown, go to next step.   No login is required.
5. Power off the NAS and remove all the hard drives.
6. Connect the NAS to the PC directly by an Ethernet cable.   If your NAS provides two LAN ports, connect LAN 2 of the NAS to the PC.
7. Use a pen or any pointed object to press and hold the reset button of the NAS (see below).
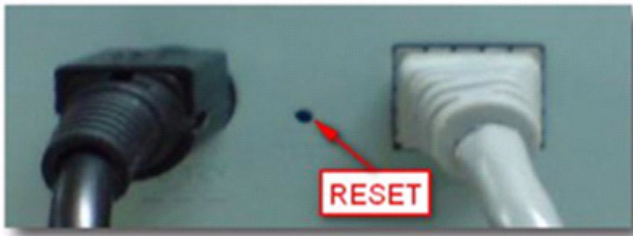
8. Press the power button of the NAS and hold the button.   Keep holding the button until you hear two short beeps in about 5-8 seconds.   The Status LED of the NAS should be flashing red and green and then glows red.
9. The LAN LED of the NAS should be flashing for the first few seconds and then glows red.
10. LEAVE THE NAS ALONE AT THIS POINT!   DO NOT TURN IT OFF OR UNPLUG THE POWER CORD.   Wait for about 5 minutes.
11. Wait until you hear a long beep or two short beeps and the Status LED is flashing green.   The NAS will then reboot.   No intervention required during this stage.
12. The reboot process should take about 3 minutes.   After that you should hear a long beep.
13. Connect the NAS to your switch or router and use the QNAP Finder to find the NAS.

What should I do if the startup problem persists?

If the startup problem persists, please return the NAS to your local distributor or reseller for system repair immediately.

Applied QNAP NAS models: TS-239 Pro, TS-239 Pro II, TS-239 Pro II+, TS-439 Pro, TS-439 Pro II, TS-439 Pro II+, TS-259 Pro, TS-259 Pro+, TS-459 Pro, TS-459 Pro+, TS-459 Pro II, TS-459U, TS-459U+, TS-559 Pro, TS-559 Pro+, TS-559 Pro II, TS-659 Pro, TS-659 Pro+, TS-659 Pro II, TS-859 Pro, TS-859 Pro+, TS-859U, TS-859U+, TS-509,TS-809, TS-809U, SS-439, SS-839.

This firmware recovery guide is intended for users who encounter system startup failure due to incomplete or unsuccessful firmware update caused by power outage or network disconnection during the process.   To verify if this guide applies to your NAS, follow the steps below:

1. Power off the NAS.

2. Remove all the hard drives from the NAS.

3. Connect a VGA monitor and a USB keyboard to the NAS.

4. Power on the NAS.

AMI BIOS …: The following screen shows the BIOS of the NAS can start up correctly.

1023MB OK: The DRAM has been detected (the DRAM size depends on the NAS model).

128MB ATA Flash Disk ADAA408J: The DOM has been detected (the DOM size depends on the NAS model).

If the BIOS cannot be started or any component, such as the DRAM or DOM, cannot be detected correctly, please contact the local distributor immediately and send the NAS for repair.   If the NAS can start up correctly after the hard drives have been removed, please replace the hard drives and try to start up the NAS again.

5. If the screen shows "Uncompressing Linux…", the system on the DOM is starting to boot up.   However, if the system is corrupted, some error messages will be shown during the startup process.   You can try to recover the system on the DOM by the following instructions.
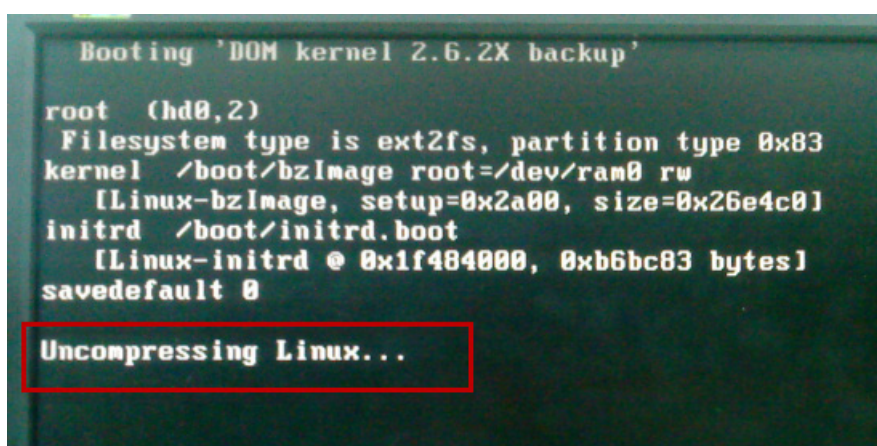
6. To recover the system on the DOM, following the instructions described in sections A and B below.

    A. Create a USB boot disk.

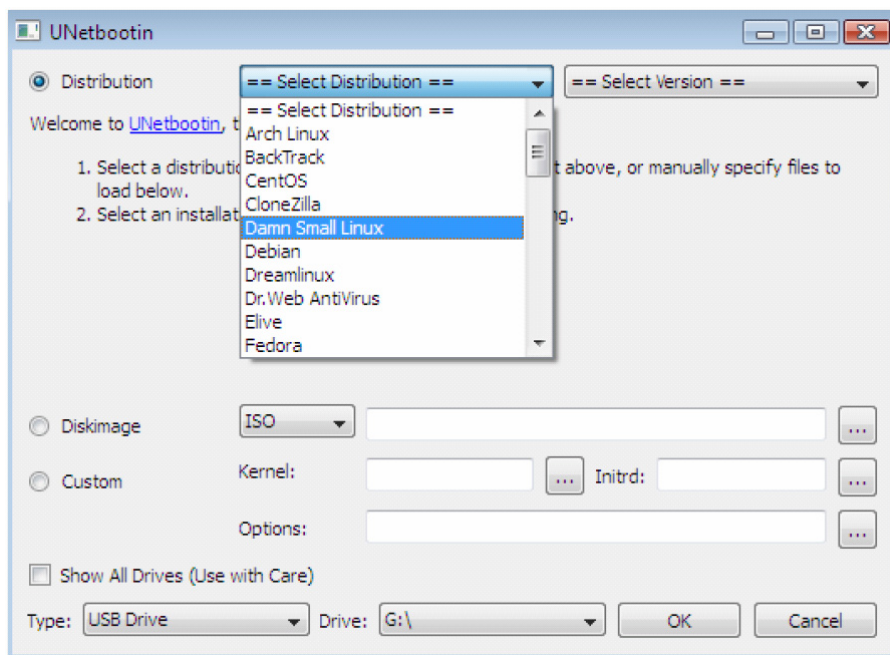   B. Use the USB boot disk to refresh the system on the DOM.

A. Create a USB boot disk

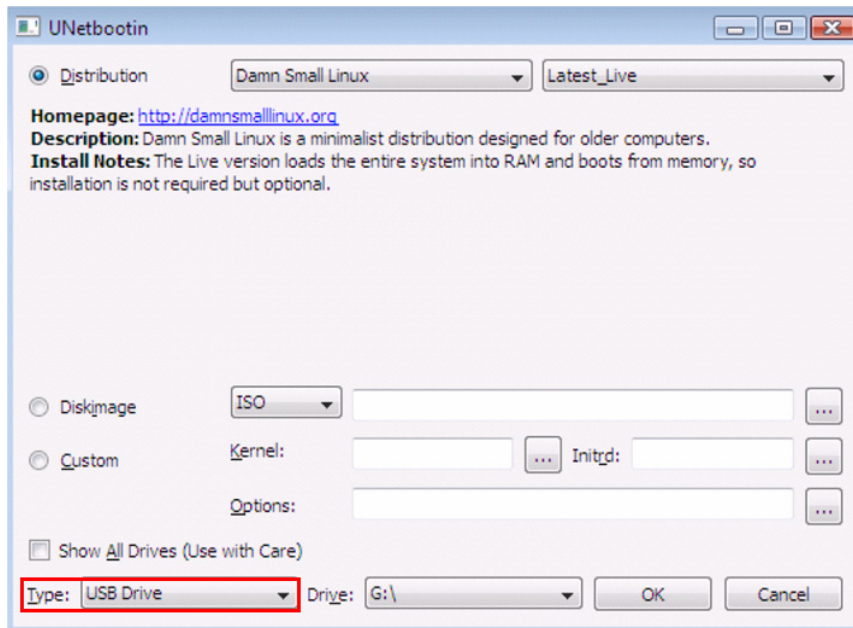1. Download UNetbootin from http://unetbootin.sourceforge.net.

2. Plug a USB flash drive to your PC.   The USB flash drive should contain free space of 1GB or more and formatted as FAT32.
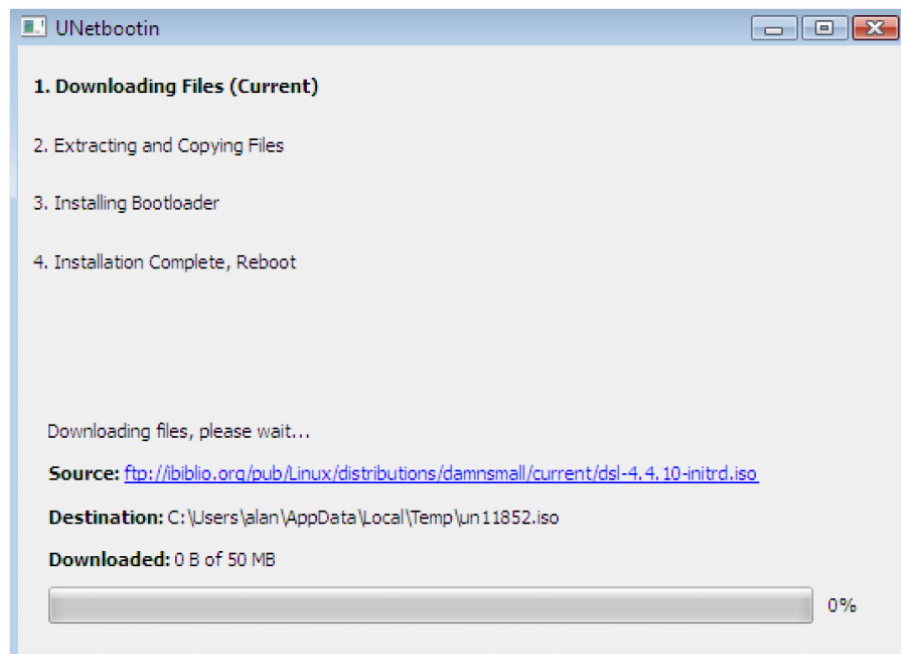
3. Run UNetbootin.

4. Select "Distribution" and then "Damn Small Linux".

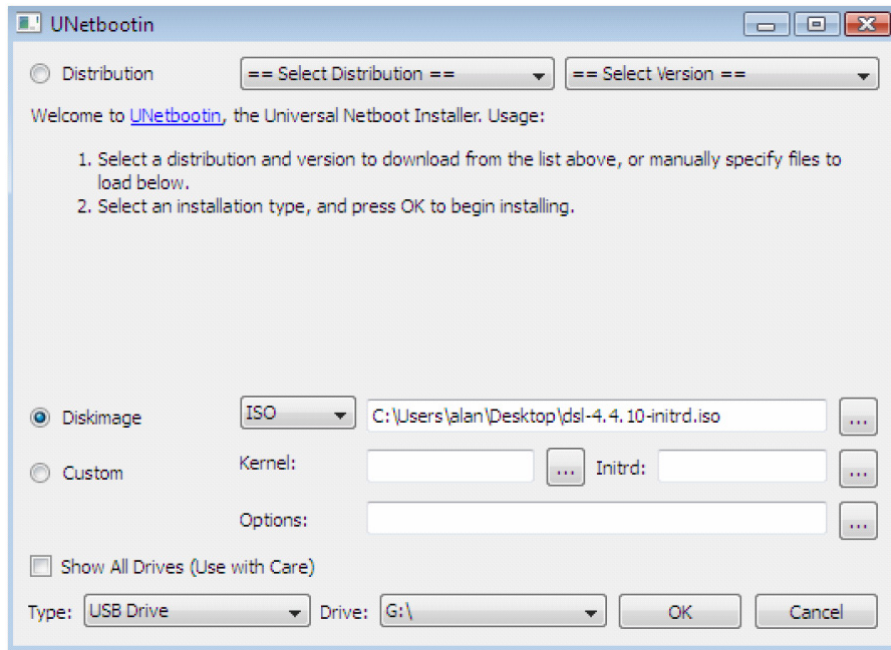5. Select "USB Drive" as the type and specify the drive location.   Then click "OK".

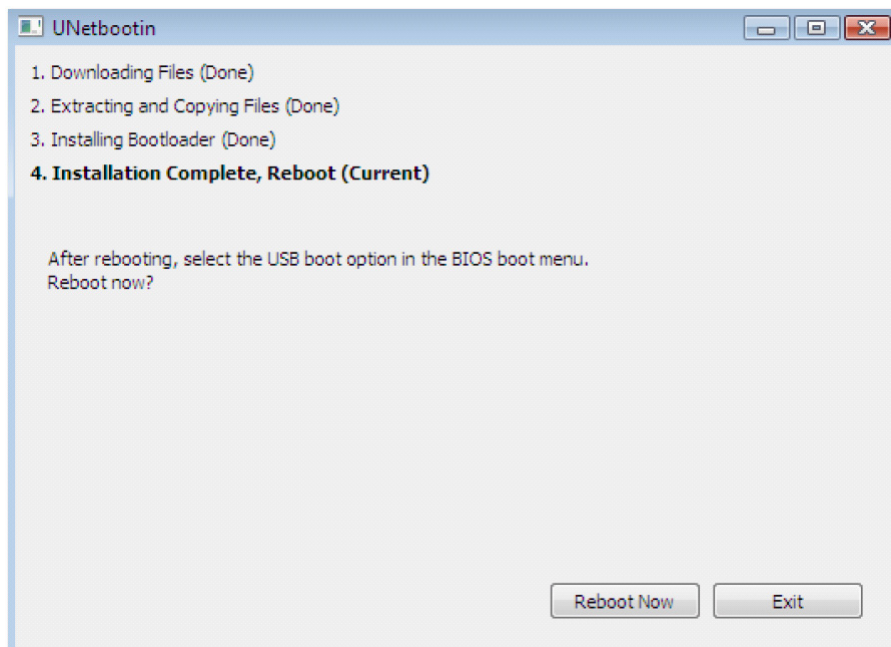6. The program will download Damn Small Linux to the USB flash drive.

7. You can also download Damn Small Linux manually via the following link:

http://distro.ibiblio.org/damnsmall/current/dsl-4.4.10-initrd.iso

Then select "Diskimage" and specify the file location.   Click "OK".

8. Click "Exit" upon successful installation.

9. Copy the DOM image(s) of the NAS to the USB flash drive (boot disk).

Image links:

TS-239 Pro

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-239_20091014-3.1.2.img

TS-239 Pro II

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-239PROII_20100928-1.0.6.img

TS-239 Pro II+

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-239PROII+_20110118-1.0.9.img

TS-259 Pro

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-259_20101129-1.0.9.img

TS-439 Pro

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-439_20091014-3.1.2.img

TS-439 Pro II

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-439PROII_20100928-1.0.6.img

TS-439 Pro II+

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-439PROII+_20101119-1.0.9.img

TS-439U

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-439U_20091014-3.1.2.img

TS-459 Pro, TS-459 Pro+, TS-459 Pro II

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-459_20101118-1.0.9.img

TS-459U, TS-459U+

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-459U_20101118-1.0.9.img

TS-509

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-509_20100302-1.0.1.img

TS-559 Pro, TS-559 Pro+, TS-559 Pro II

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-559_20101118-1.0.9.img

TS-639 Pro

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-639_20091014-3.1.2.img

TS-659 Pro, TS-659 Pro+, TS-659 Pro II

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-659_20101118-1.0.9.img

TS-809

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-809_20101119-1.0.9.img

TS-809U

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-809U_20101119-1.0.9.img

TS-859 Pro, TS-859 Pro+

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-859_20101118-1.0.9.img

TS-859U, TS-859U+

http://eu1.qnap.com/Storage/tsd/fullimage/F_TS-859U_20101118-1.0.9.img

SS-439

http://eu1.qnap.com/Storage/tsd/fullimage/F_SS-439_20090627-3.1.0.img
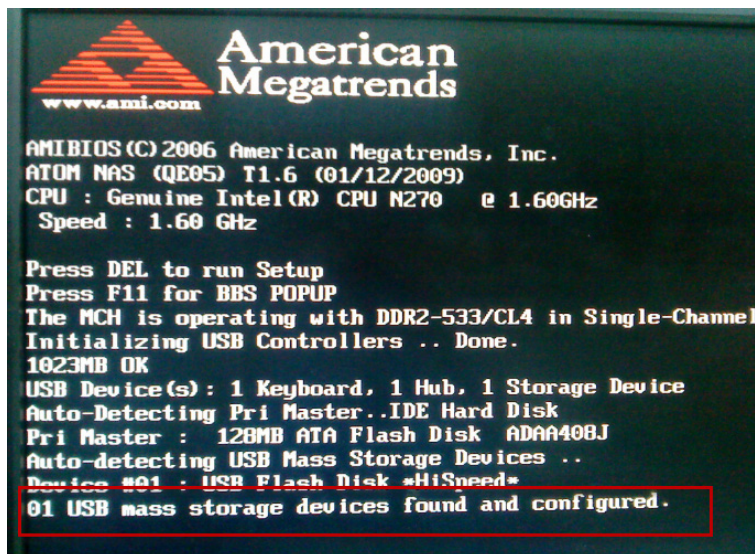

SS-839

http://eu1.qnap.com/Storage/tsd/fullimage/F_SS-839_20091014-3.1.2.img

B. Re-flash the DOM on the NAS with the USB boot disk

1. Make sure your NAS is turned off and all hard drives have been removed from the NAS.

2. Connect a VGA monitor, a USB keyboard, and the USB boot disk to the NAS.

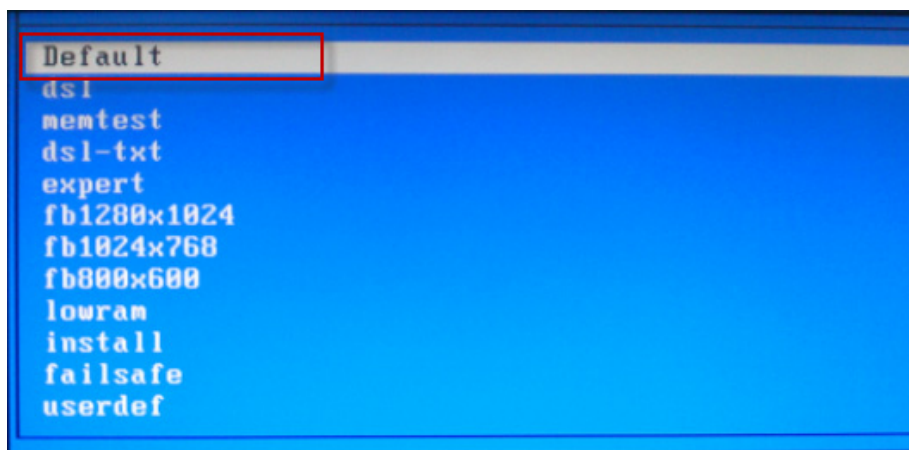3. Turn on the NAS and press F11 key repeatedly.

4. Select the USB flash drive as the boot device.   If the menu is not shown, restart the NAS and repeat the previous step.
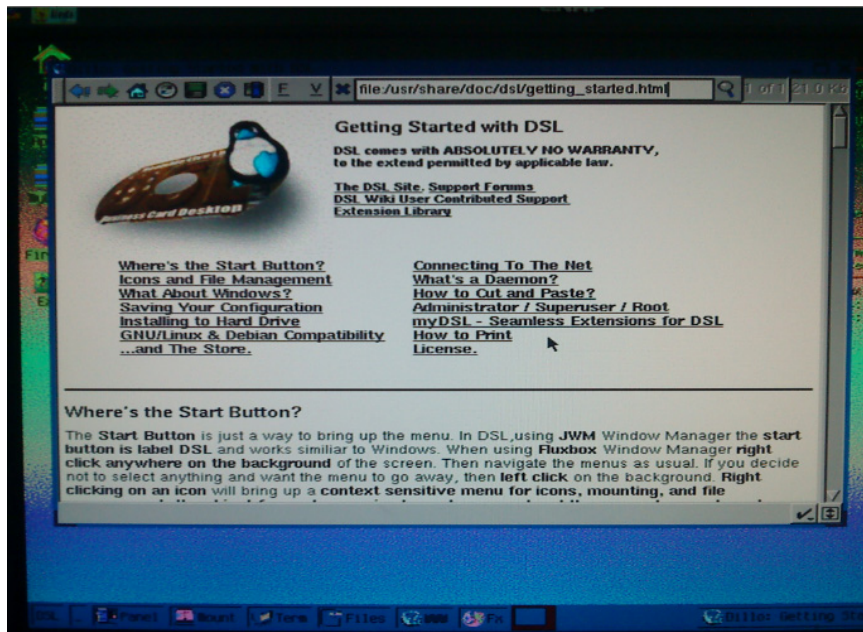
Note: If two USB devices are detected, do NOT select "USB DISK MODULE PMAP".


```
Please select boot device:

HDD:PM- 128MB ATA Flash Disk
USB:USB Flash Disk

      ↑ and ↓ to move selection
    ENTER to select boot device
      ESC to boot using defaults
```

5. On the following menu, select "Default" for the monitor setting.   Then, press <SPACE> to continue.


```
Default
dsl
memtest
dsl-txt
expert
fb1280x1024
fb1024x768
fb800x600
lowram
install
failsafe
userdef
```

6. Upon complete bootup, the following window will be shown.
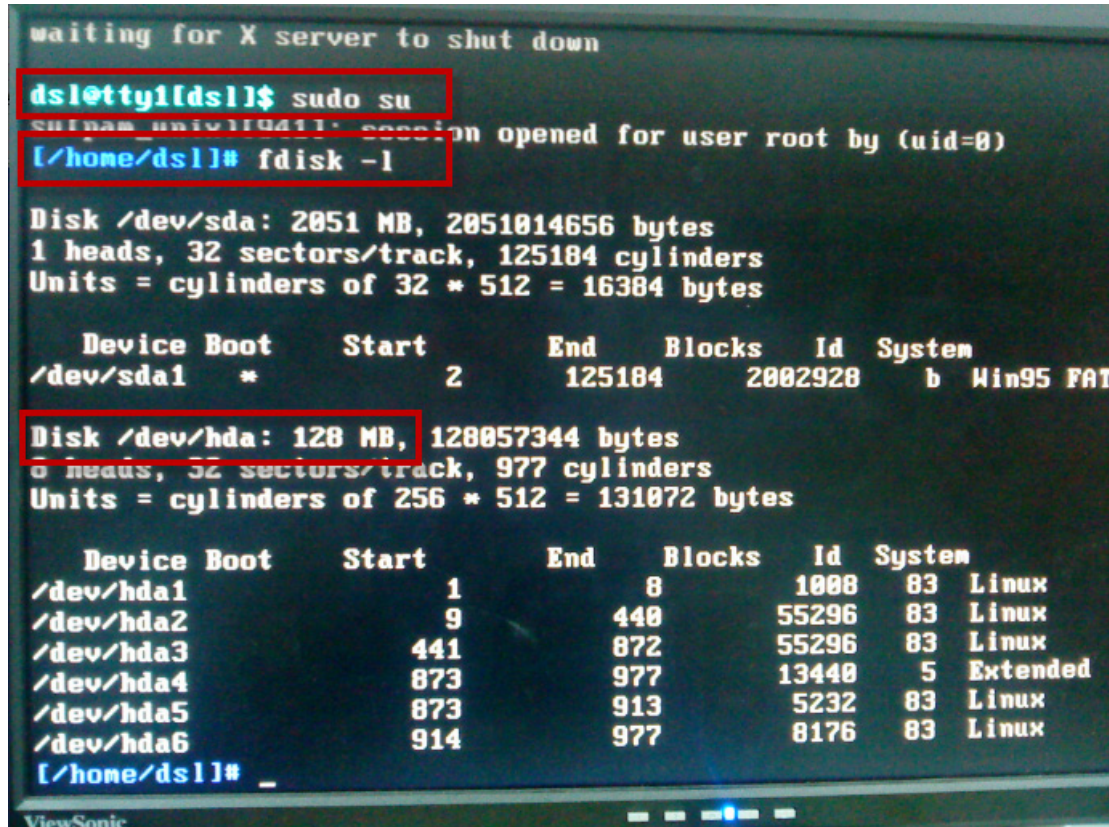

7. Press Ctrl+Alt+Del to enter command line.

8. Input the following command:

sudo su

fdisk –l

/dev/sda is your flash drive.

/dev/sdb or /dev/hda is the DOM drive.   The size should be 128 MB or 512 MB depending on the NAS model.

9. Input the following command:

mkdir usbdrive

mount /dev/sda1 /home/dsl/usbdrive

cd /home/dsl/usbdrive

10. Input the following command:

cp dom.img /dev/sdb

 "dom.img" is the firmware name.

/dev/sdb or /dev/hda is the drive name of the DOM (depending on the NAS model).

11. Reboot your NAS with the command:

\# reboot


```
[/home/dsl]# fdisk -l

Disk /dev/sda: 2051 MB, 2051014656 bytes
1 heads, 32 sectors/track, 125184 cylinders
Units = cylinders of 32 * 512 = 16384 bytes

   Device Boot    Start      End     Blocks   Id  System
/dev/sda1    *            2     125184    2002928    b  Win95 F

Disk /dev/hda: 128 MB, 128057344 bytes
8 heads, 32 sectors/track, 977 cylinders
Units = cylinders of 256 * 512 = 131072 bytes

   Device Boot    Start      End     Blocks   Id  System
/dev/hda1              1        8       1008   83  Linux
/dev/hda2              9      440      55296   83  Linux
/dev/hda3            441      872      55296   83  Linux
/dev/hda4            873      977      13440    5  Extende
/dev/hda5            873      913       5232   83  Linux
/dev/hda6            914      977       8176   83  Linux
[/home/dsl]# mkdir usbdrive
[/home/dsl]# mount /dev/sda1 /home/dsl/usbdrive
[/home/dsl]# cd /home/dsl/usbdrive
[/home/dsl/usbdrive]# cp dom.img /dev/hda
[/home/dsl/usbdrive]# reboot
```

12. Connect the NAS to your switch or router and use the QNAP Finder to find the NAS. If the NAS can be connected, you may turn off the NAS, install the hard drives, and turn on the NAS to configure the system again.

What should I do if the startup problem persists?

If the startup problem persists, please return the NAS to your local distributor or reseller for system repair immediately.

9. Firmware Recovery Guide for Intel x86-based NAS Models

Applied QNAP NAS models: TS-239, TS-439, TS-239 Pro II, TS-439 Pro II, SS-439, SS-839, TS-509, TS-809/809U, TS-x59, and TS-x59 Pro+ series.
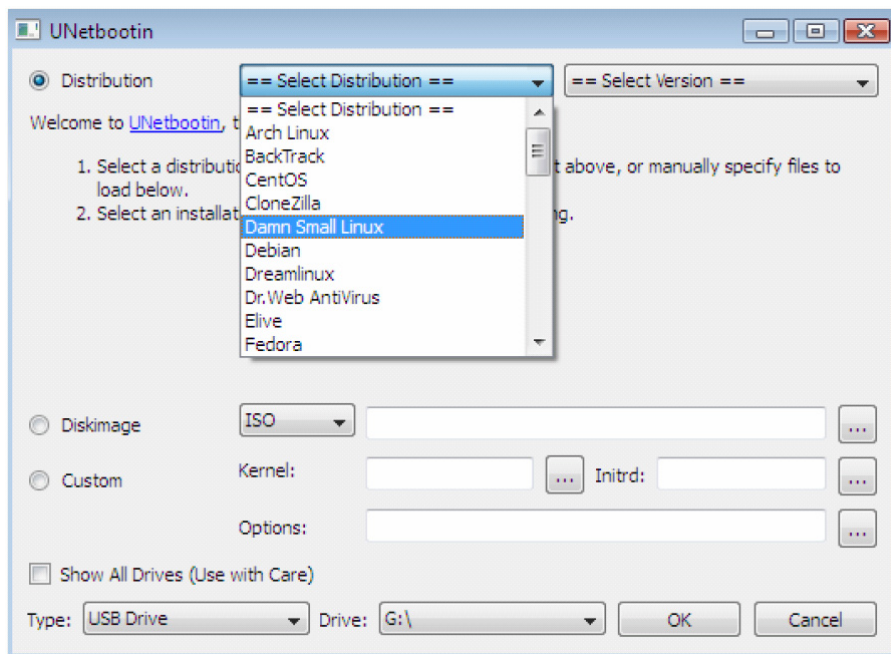
This firmware recovery guide is intended for users who encounter system startup failure due to incomplete or unsuccessful firmware update caused by power outage or network disconnection during the process.   To verify if this guide applies to your NAS, follow the steps below:

1. Power off the NAS.
2. Remove all the hard drives.
3. Power on the NAS.
4. Wait for ten seconds and check if you hear a short beep.
5. After the short beep, wait for two minutes to check if you hear a long beep.
6. If you only hear a short beep or do not hear any beep, follow the instructions of this guide to recover your NAS.

Follow the steps below to recover the NAS.

Create a USB boot disk

1. Download UNetbootin from http://unetbootin.sourceforge.net.

2. Plug a USB flash drive to your PC.   The USB flash drive should contain free space of 1GB or more and formatted as FAT32.

3. Run UNetbootin.

4. Select "Distribution" and then "Damn Small Linux".

5. Select "USB Drive" as the type and specify the drive location.   Then click "OK".

6. The program will download Damn Small Linux to the USB flash drive.

7. You can also download Damn Small Linux manually via the following link:

http://distro.ibiblio.org/damnsmall/current/dsl-4.4.10-initrd.iso
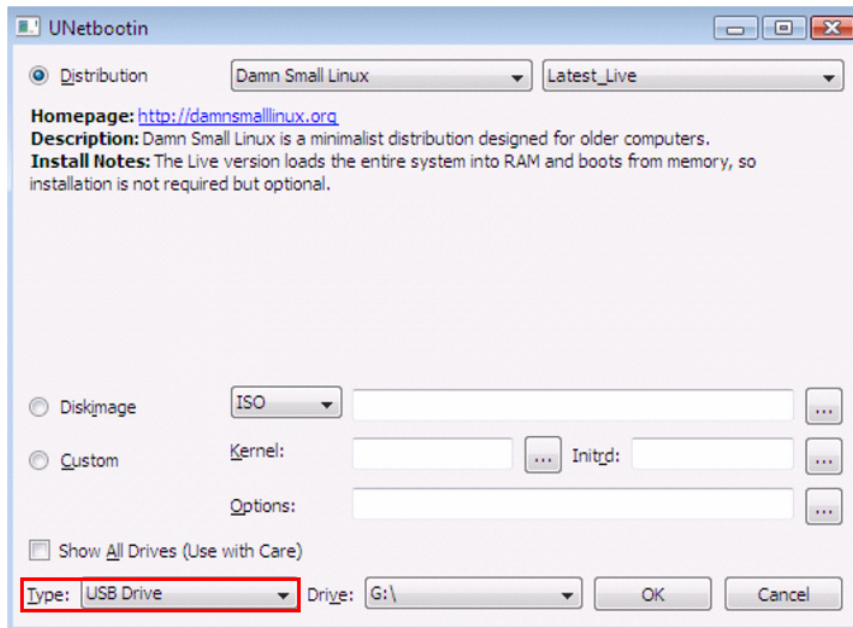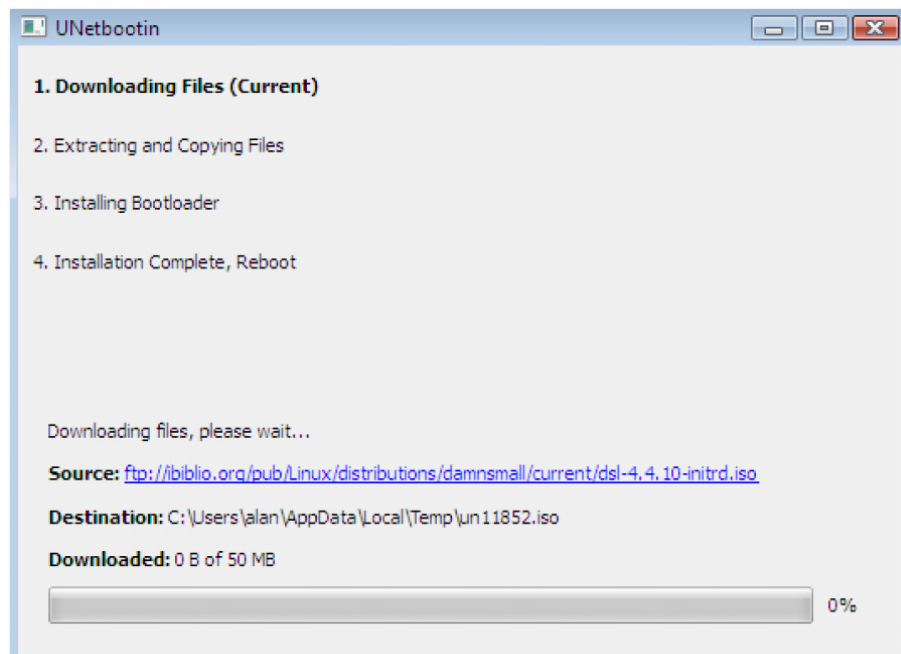
Then select "Diskimage" and specify the file location. Click "OK".
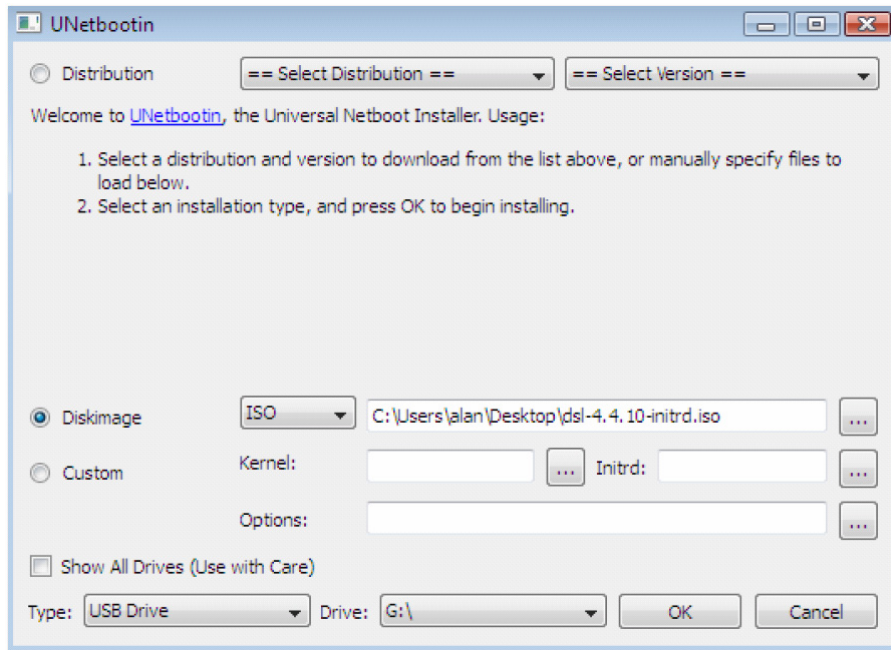
8. Click "Exit" upon successful installation.

9. Copy the DOM image(s) to the USB flash drive (boot disk).

Re-flash the DOM on the NAS with the USB boot disk

1. Make sure your NAS is turned off and all hard drives have been removed from the NAS.
2. Connect a VGA monitor, a USB keyboard, and your USB boot disk to the rear of your NAS.
3. Turn on the NAS and press F11 key repeatedly.
4. Select the USB flash drive as the boot device. If the menu is not shown, restart the NAS and repeat the previous step.

Note: If two USB devices are detected, do NOT select "USB DISK MODULE PMAP".
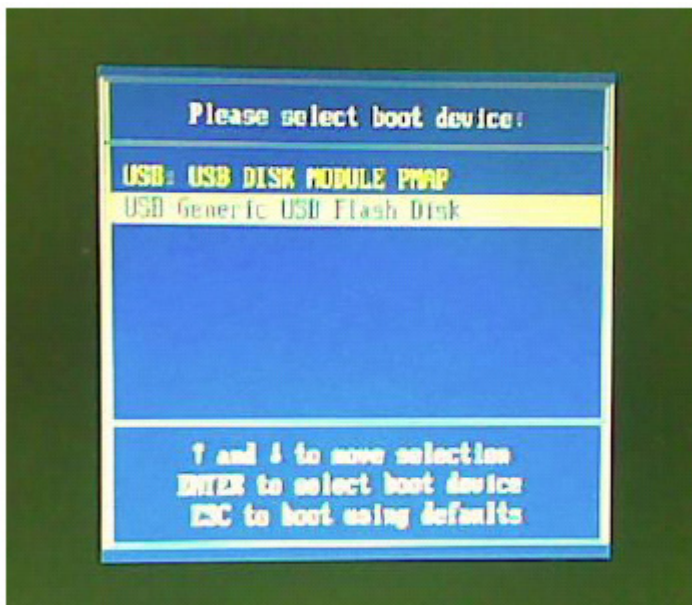
5. Select "Default" on the next menu.
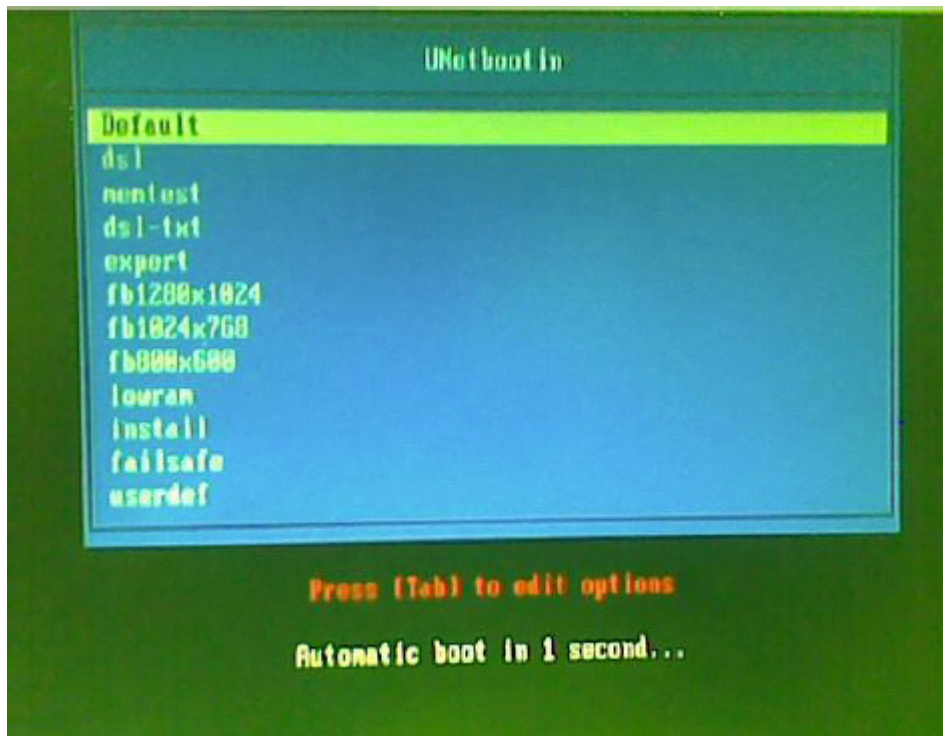
6. Upon complete bootup, the following window will be shown.
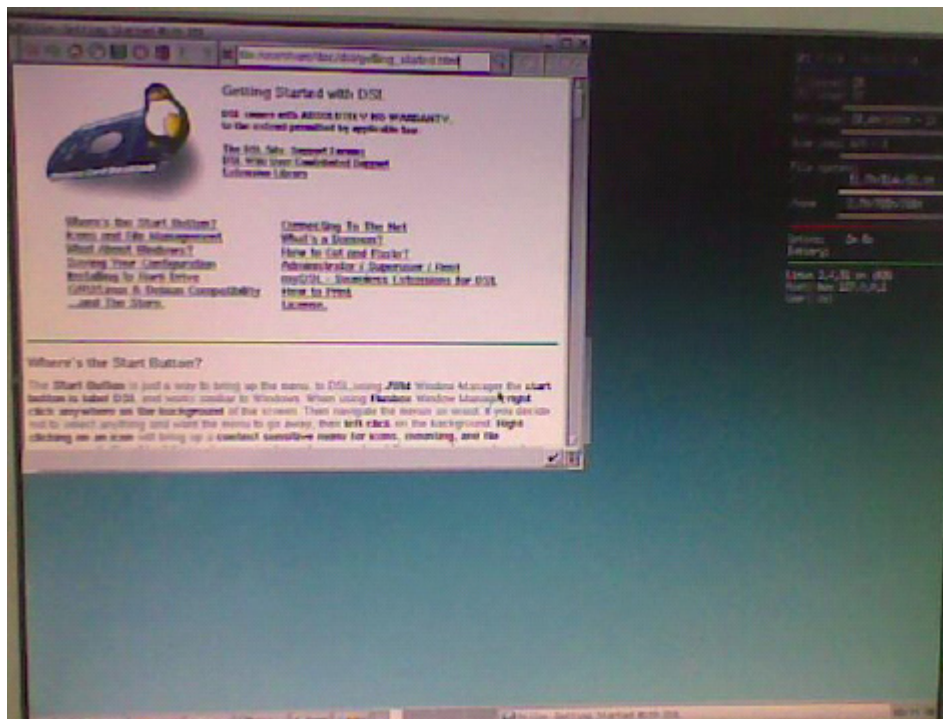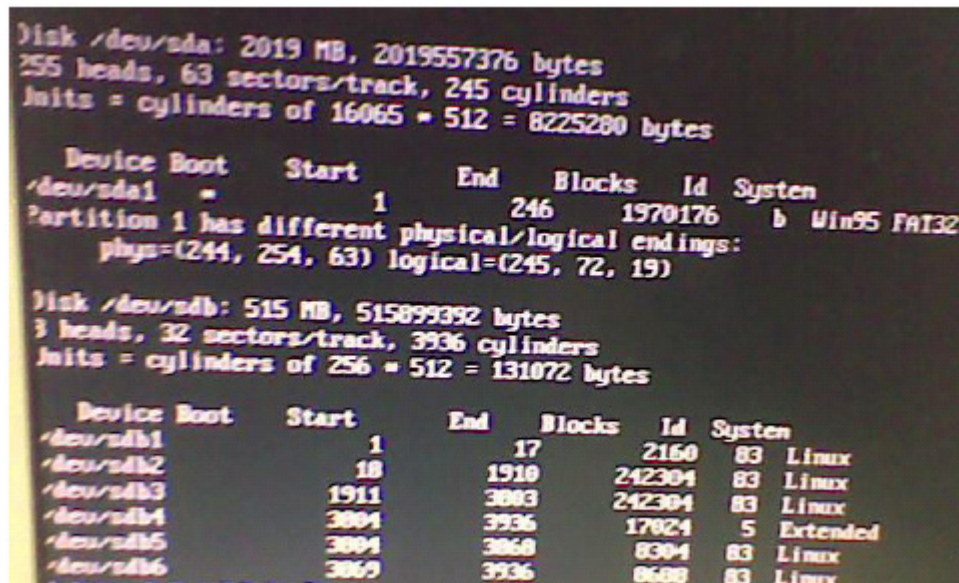
7. Press Ctrl+Alt+Del to enter the command line.

8. Input the following command:
    # sudo su
    # fdisk –l

9. The following result will be shown.

   /dev/sda is your flash drive; **/dev/sdb**, about 128MB or 512MB, is the DOM to be re-flashed.

10. Input the following command:
    # mkdir usbdrive
    # mount /dev/sda1 /home/dsl/usbdrive
    # cd /home/dsl/usbdrive

11. Input the following command:
    # cp dom.img /dev/sdb
    "dom.img" is the firmware name; /dev/sdb is the drive name of the DOM.

12. Reboot your NAS with the command:
    # reboot

13. Connect the NAS to your switch or router and use the QNAP Finder to find the NAS.   If the NAS can be connected, you may turn off the NAS, install the hard drives and turn

What should I do if the startup problem persists?

If the startup problem persists, please return the NAS to your local distributor or reseller for system repair immediately.

Technical Support

Online Support: http://www.qnap.com

MSN: q.support@hotmail.com

Skype: qnapskype

Forum: http://forum.qnap.com

Technical Support in the USA and Canada:

Email: q_supportus@qnap.com

TEL: 909-595-2819

Address: 166 University Parkway, Pomona CA 91768

Service Hours: 08:00-17:00 (GMT -08:00 Pacific Time, Monday to Friday)

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