

# NEXTSTEP for Intel Processors

**Title:** Installation Requiring the Adaptec Driver Update

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**Keywords:** Adaptec, SCSI, 1542, 1540

## Overview

The Adaptec 154x driver update for NEXTSTEP Release 3.2 is now available from NeXTanswers, documents 1520 and 1521. The file names are:

```
1520_Adaptec_154xDriver.ReadMe.rtf  
1521_Adaptec_154xDriver.pkg.compressed
```

If you are copying the files via anonymous FTP, the files are in the following directory:

```
pub/NeXTanswers/Files/Drivers/3.2_Drivers/  
Adaptec154xDriver.54520.1
```

Refer to the ReadMe (document 1520) if you want a list of the Adaptec and Bus Logic adapters supported by this update, or if you are installing the update on a system that is already running NEXTSTEP.

This document lists some problems addressed by this update, and shows how to use the

update as a "loadable boot driver" to install NEXTSTEP on a new system.

## Problems addressed by the update

⌘ **"panic: (Cpu 0) AHAController: out of ccbs"**

If you get an error message similar to the one below, you need to install the driver update. Follow the steps in "Installing a system with the update."

```
registering: sc0
panic: (Cpu 0) AHAController: out of ccbs
panic: NeXT Mach 3.2: Mon Oct 18 22:08:07 PDT 1993;
root(rcbuilder):mk-149.30.15.obj~2/RC_i386/RELEASE_I386
```

System Panic

```
kernel panic exception (6,3,1)
waiting for remote debugger connection
(Type 'c' to continue or 'r' to reboot)
```

⌘ **": thread: waitForInterrupt: returns -735"**

If the message ": thread: waitForInterrupt: returns -735" repeats on your screen, it may be caused by "advanced" settings on the Adaptec 1542CF. These advanced options don't work with the original Adaptec1542B driver that was shipped with Release 3.2. The

problem is fixed in the driver update.

If you get this error, restart the computer and follow these steps:

1. When the **boot:** prompt appears, type Control-A to start up the Adaptec SCSISelect™ Utility.
2. Press Return at the first menu to select the port address.
3. In the second menu, select "Advanced Configuration Options." Make sure the following options are DISABLED:

```
Extended BIOS Translation for DOS Drives > 1 GByte  
(Leave this option enabled if your drive is in fact greater than one gigabyte!)
```

```
Dynamically Scan SCSI Bus for BIOS Devices
```

Changing these settings may allow you to install NEXTSTEP Release 3.2 normally. You can then install the driver update and reenable these options if you wish. If your system still doesn't work after disabling these options, follow the steps in "Installing a system with the update."

## Ⓓ "No SCSI controller or CD-ROM drive found"

Sometimes the original Adaptec 1542B driver cannot find the Adaptec card, so it issues the above message. This problem is fixed in the new version of the driver. This happens only about 10% of the time, so if you see this error you can just try again and install the new driver when the system boots successfully. If the problem continues, follow the steps in "Installing a system with the update."

# Installing a system with the update

The following instructions help you use the Adaptec 154x driver update as a loadable boot driver to install NEXTSTEP Release 3.2. These steps prevent the original driver from being loaded, so you can use the new driver. They also remove the original driver from the hard disk you are installing and copy the new driver from the floppy to the hard disk.

1. Create a floppy with the new Adaptec 154x driver in the directory **/usr/Devices**, or get one from NeXT Technical Support. The floppy must have **/usr/Devices** folder containing the new `Adaptec1542B.config` driver bundle:

```
/usr/Devices/Adaptec1542B.config
```

2. Boot the computer with the Release 3.2 *CD-ROM Installation Disk* in the floppy drive and the *NEXTSTEP Release 3.2* CD-ROM in the CD-ROM drive. When you get to the **boot:** prompt, type the following if you booted from a SCSI disk:

```
boot: "Boot Drivers"="PS2Keyboard"
```

Otherwise, type the following if booted from a IDE disk:

```
boot: "Boot Drivers"="PS2Keyboard IDE"
```

3. Select the language you would like to use.
4. When you see the following prompt, remove the *CD-ROM Installation Disk* from the floppy disk drive and insert the floppy disk with the new Adaptec 1542x driver (from step

1). Type **1** and press Return.

The following SCSI adapter and hard disk controller device driver are available while installing NEXTSTEP:

```
Adaptec 1542B SCSI Adapter
DPT 2012-B EISA SCSI Adapter
IDE Disk Controller
```

If you have a different kind of SCSI adapter or hard disk controller, insert the floppy disk that contains the device driver for your device.

Type 1 to load a device driver from the disk in the floppy disk drive.

Type 2 to continue without loading additional device drivers.

**Note:** Make sure you change floppies, because the *CD-ROM Installation Disk* contains the original Adaptec1542B driver, which could be loaded by mistake.

**5.** The computer displays a list of the drivers on the floppy. Find the Adaptec154x driver on the list and type the appropriate number. You should see a message like:

```
Loading driver Adaptec1542B
Reading config:/usr/Devices/Adaptec1542B.config
```

The driver was loaded successfully. Press return to continue.

Press Return. When you are asked again about loading device drivers, type **2** and press Return. Continue with the installation as usual.

6. When you are asked to remove the floppy disk and press Return to reboot, instead insert the NEXTSTEP Release 3.2 *CD-ROM Installation Disk* in the floppy drive again and press Return.

**Note:** Make sure the NEXTSTEP Release 3.2 *CD-ROM Installation Disk* is in the floppy drive!

When you see the **boot:** prompt, type the following if you are booting from a SCSI disk:

```
boot: mach_kernel -s "Boot Drivers"="PS2Keyboard"
```

Otherwise, type the following if you are booting from a IDE disk:

```
boot: mach_kernel -s "Boot Drivers"="PS2Keyboard IDE"
```

**Note:** Don't forget the **-s** flag!

7. Repeat steps 3, 4, and 5 to load the new Adaptec1542B driver from the new floppy disk again.

8. When you get to a # prompt, make sure the driver update floppy is in the floppy disk drive, and type:

```
# /usr/etc/driverLoader D=Floppy
```

If you are installing onto a SCSI hard disk, mount the hard disk as follows:

```
# mount -n /dev/sd0a /disk
```

(If you are not installing onto SCSI device 0, substitute the appropriate device name for `sd0a`.)

Otherwise, if you are installing an IDE hard disk, mount the hard disk as follows:

```
# mount -n /dev/hd0a /disk
```

For either type of disk, continue by typing the following commands:

```
# rm -r /disk/usr/Devices/Adaptec1542B.config
# mount -n /dev/fd0a /floppy
# cp -r /floppy/usr/Devices/Adaptec1542B.config /disk/usr/Devices
# reboot
```

When the screen becomes blank, remove the floppy disk from the drive to keep the computer from trying to boot from it.

Continue with the installation as normal.

See also:

1109\_SCSI\_Setup

1107\_Adaptec\_1542B\_and\_Adaptec\_1540B\_SCSI\_Adapters

1108\_Adaptec\_1542C\_and\_Adaptec\_1540C\_SCSI\_Adapters

1118\_Bus\_Logic\_BT-747\_SCSI\_Adapter

1362\_Bus\_Logic\_BT-542\_SCSI\_Adapter

1547\_Bus\_Logic\_BT-445S\_SCSI\_Adapter

Valid for 3.2