

# NEXTSTEP for Intel Processors

**Title:** Keyboard Support

**Entry Number:** 1361

**Last Updated:** <<Date June 13 1995>>

**Product Vendor:**

NA

**Keywords:** Keyboard, PS/2, AT, Mapping

## Usage Commentary:

The Keyboard driver, "PS/2 Keyboard," supports both PS/2-compatible and AT-compatible keyboards.

## Setup and Installation:

### Known Problems:

#### Release 3.2

- There is a known bug which may lock up your keyboard during installation onto systems which do not have integrated PS/2 mouse support. The problem is in the PS/2 mouse driver, and removing the PS/2 mouse driver from your default configuration will work around the problem.

The following entry will prevent the PS/2 mouse driver from being automatically loaded. By default, NEXTSTEP loads the following drivers during installation and when booting **config=Default**: PS2Keyboard, PS2Mouse, Adaptec1542B, DPT2012, IDE, and Floppy. To remove the PS2Mouse driver from this list, type the following at the **boot:** prompt:

```
"Boot Drivers"="PS2Keyboard Adaptec1542B DPT2012 IDE Floppy"
```

While configuring, be certain to remove the instance of the PS2Mouse driver which is automatically added by Configure.

### **Release 3.2 and 3.1**

NEXTSTEP documentation frequently refers to the Command key, which is used for keyboard alternatives to menu commands. On most PC keyboards, the left Alt key functions as the Command key, and the right Alt key functions as the Alternate key.

There are two key sequences that you can use to restart your computer if it gets into a bad state. **Only use these sequences if you're unable to log out or to restart your computer conventionally.**

#### **Alternate-NumLock**

Hold down the Alternate key (the right Alt key on most PC keyboards) and press the NumLock key, which is at the upper left of the numeric keypad. A panel asks whether you want to halt, restart, or cancel.

#### **Alternate-Control-NumLock**

**WARNING: Using this key sequence risks losing data. Only use it as a last resort.**

Hold down both the Alternate key and the Command key (that is, both Alt keys) while you press the NumLock key. A panel asks whether you want to reboot or continue.

To provide a smaller footprint, many portable computer manufacturers have removed keys from the standard PC keyboard layout. Specifically, many of them have no separate numeric keypad and only one Alt key. Usually, they provide other ways to generate the keycodes from these missing keys, like a special Fn or Function key. By holding this key down in conjunction with other keys, you can simulate the missing keys. However, this causes a problem with NeXT's default keymapping, because it makes it difficult to use the Alternate key and to generate the key sequences described above.

On keyboards with only one Alt key, the Alt key acts as the Command key. To generate the Alternate key, press the Fn key while you press the Alt key.

You use the Alternate key to generate special symbols and European characters. For example,

to type the Ý character, you must use the Alternate key. To do this normally, you'd type Alternate-**e e**. On a keyboard with only one Alt key, type Function-Alternate-**e e** to get the same effect.

To generate the Alternate-NumLock sequence mentioned above, you have to type Function-Alternate-NumLock. Keyboards that allow access to only a single Alternate key in a single keystroke preclude the Alternate-Control-NumLock sequence, because it requires you to press both Alt keys simultaneously.

### **Release 3.1**

The Compaq LTE notebook has a problem under NEXTSTEP Release 3.1 that requires a careful execution of a special procedure during installation. During the second phase of installation the keyboard will not function at all. You must use Configure to add an entry for the integrated serial trackball and remove the standard entry for the PS/2 mouse. If the PS/2 mouse entry is not removed, your system's keyboard will not work when you reboot, and you will be unable to boot with the option **config=Default** to correct the problem. If you make an error at this stage, you'll have to reinstall NEXTSTEP.