Appendix D. Interrupt and DMA Assignments

The tables in this appendix outline the interrupt request assignments and direct memory access (DMA) channel assignments for your system unit. If you install industry-standard architecture (ISA)-bus adapters (AT-bus adapters) in your system unit, be sure that no interrupts or DMA channels conflict with existing resources. For example, do not set an ISA adapter to use interrupt 14 (IRQ14) because IRQ14 is used by the IDE hard disk drive.

Interrupt Request Assignments

The following table outlines the interrupt request assignments.

Table D-1. Interrupt Request Assignments

Interrupt Request	System Resource
NMI	Parity error or channel check
0	Reserved (interval timer)
1	Reserved (keyboard buffer full)
2	Reserved (cascade interrupt from slave PIC)
3	Serial port 2
4	Serial port 1
5	Available (parallel port 2, or can be used by either AT- or PCI-bus adapters) (see Note 2)
6	Diskette drive
7	Parallel port 1
8	Real-time clock
9	Available (can be used by either AT- or PCI-bus adapters) (see Note 2)
10	Available (can be used by either AT- or PCI-bus adapters) (see Note 2)
11	Onboard Ethernet (optional)
12	Mouse port, if enabled; otherwise, it is available
13	Reserved (math coprocessor)
14	IDE hard disk drives
15	Alternate IDE hard disk drives

Notes:

1. Abbreviations:
   NMI = non-maskable interrupt
   PCI = peripheral component interface
   PIC = programmable interrupt controller
2. For interrupts 5, 9, 10, and 11, at least one must be available for PCI adapters if any PCI adapters are installed. Interrupt 9 can be used as the vertical retrace interrupt by some software, so it might not always be available.

DMA Channel Assignments

The following table outlines the DMA channel assignments.

Table D-2. DMA Channel Assignments

DMA Channel	Data Width	System Resource
0	8 bits	Available
1	8 bits	Available
2	8 bits	Reserved (diskette drive)
3	8 bits	Available (used by parallel port when in extended capabilities (ECP) mode)
4		Reserved (cascade channel)
5	16 bits	Available
6	16 bits	Available
7	16 bits	Available