Beep Codes

Warning: Although we have made a serious effort to ensure accuracy, use this information at your own risk. We cannot be responsible for damage.

AMI

Beeps	Meaning	Action
1 Short	RAM refresh error	Check the RAM.
2 Short	RAM parity error	Check the RAM.
3 Short	Problem in 1st 64 KB of RAM	Check the RAM.
4 Short	System timer failure	Check the motherboard and remove all expansion cards and replace one at a time.
5 Short	CPU error	Check the CPU, motherboard, and remove all expansion cards and replace one at a time.
6 Short	Gate A-20 failure	Reseat or replace keyboard or keyboard controller.
7 Short	Exception error	Check the motherboard and remove all expansion cards and replace one at a time.
8 Short	Video memory error	Check video memory or video adapter.
9 Short	ROM checksum error	Reseat or replace COMS chip. Check the motherboard and remove all expansion cards and replace one at a time.
10 Short	CMOS register	Check the motherboard and remove all expansion cards and replace one at a time.
11 Short	L2 cache memory failure	Check the motherboard and remove all expansion cards and replace one at a time.
1 Long, 2 Short	Video system failure	Check video adapter.
1 Long, 3 Short	RAM failure above 64 KB	Check memory.
1 Long, 8 Short	Display failure	Check video adapter.
2 Long	POST failure	Some hardware device failed the POST. Attempt to isolate failure.
1 Long	POST pass	

AST

1 Short	CPU failure	Check CPU.
2 Short	Keyboard controller failure	Check motherboard.
3 Short	Keyboard reset failure	Check motherboard.
4 Short	Keyboard communication failure	Check motherboard.
5 Short	Keyboard input failure	Check motherboard.
6 Short	Motherboard chipset failure	Check motherboard.
9 Short	ROM BIOS checksum error	Replace BIOS chip or check motherboard.
10 Short	System timer failure	Check motherboard.
11 Short	ASIC failure	Check motherboard.
12 Short	CMOS RAM failure	Replace the BIOS chip or check motherboard.
1 Long	DMA Controller 0 failure	Check motherboard.
1 Long, 1 Short	DMA controller 1 failure	Check motherboard.
1 Long, 2 Short	Video vertical retrace failure	Check the video adapter.
1 Long, 3 Short	Video RAM failure	Check the video adapter.
1 Long, 4 Short	Video adapter failure	Check the video adapter.
1 Long, 5 Short	Failure in 1st 64 KB of RAM	Check RAM.
1 Long, 6 Short	Interrupt vector error	Check motherboard.
1 Long, 7 Short	Video initialization	Check video adapter and motherboard.

Award v4.51

1 Continuous	Memory failure	Check memory.
1 Long, 2 Short	Video adapter failure	Check video adapter.
1 Long, 3 Short	Missing video adapter or bad video RAM	Check video adapter.
The following beep codes appear while the computer is running:		
High-pitched beeps	CPU overheating	Check CPU heat sink and fan.
Repeating high- and low-pitched beeps	CPU damage or bad connection	Reseat CPU, check heat sink and fan and also fan speed in BIOS setting

Compaq

1 Short	POST passed	
2 Short	Unknown error	
1 Short, 2 Long	RAM error.	Reseat RAM modules and test. Replace RAM if necessary.
1 Long, 1 Short	ROM BIOS checksum error	Attempt to reload the BIOS from the PAQ (see http://www.hp.com or http://www.compaq.com)
1 Long, 2 Short	Video error	Check the video adapter.
1 Long, 1 Short, 1 Long, 1 Short, pause, 2 Short	AGP Video error (Compaq Deskpro only)	Check AGP video adapter.
1 continuous	RAM error	Check RAM.

Dell
(All of Dell's beeps are of the same duration. The identifiable patterns come from the number of beeps between each pause. For instance, "1-2-2-3" means 1 beep and a pause, 2 beeps and a pause, 2 more beeps and a pause, followed by 1 beep.)

1-2	No video adapter detected.	Check the video adapter.
1-2	This error can also occur if a Promise Technologies or similar IDE controller card is installed but there is no hard drive connected to the controller.	
1-2-2-3	ROM BIOS checksum error	Check the ROM BIOS chip and motherboard.
1-3-1-1	DRAM refresh error	Reseat RAM modules.
1-3-1-3	8742 Keyboard controller error	Check the keyboard connection.
1-3-3-1	Memory failure	Reseat RAM modules.
1-3-4-1	RAM failure on a specified line	Reseat RAM modules.
1-3-4-3	RAM failure on specified data bits of low byte on memory bus	Reseat RAM modules.
1-4-1-1	RAM failure on specified data bits of high byte on memory bus	Reseat RAM modules.
1 Short	POST successful	
2 Short	See error code on screen if video works.	

1 Long, 1 Short	Motherboard error	Check motherboard.
1 Long, 2 Short	Video adapter error	Check video adapter.
1 Long, 3 Short	EGA/VGA Video adapter error	Check video adapter.
3 Long	Keyboard controller error	Check motherboard.
Continuous or repeating short	Power supply error	Check power supply.

IBM AT Desktop

1 Short	Normal POST	
2 Short	POST error – check display	See display.
Continuous	Power supply, motherboard	Check power supply and motherboard.
Repeating short	Power supply, motherboard	Check power supply and motherboard.
1 Long, 1 Short	Motherboard error	Check motherboard.
1 Long, 2 Short	Video adapter error	Check video adapter.
1 Long, 3 short	EGA/VGA adapter error	Check video adapter.
3 Long	3270 keyboard controller error	Check motherboard.

IBM Thinkpad (portable)

Continuous	Motherboard failure	Check motherboard.
1 Short with video problem	Screen, motherboard, or power supply failure	Check power supply, screen and motherboard.
1 Short with "Unable to access boot source" message on screen	Hard drive or motherboard failure.	Check hard drive and motherboard.
1 Long, 2 Short 1 Long, 4 Short	Motherboard, video adapter, and/or screen failure.	Check screen and motherboard.
	Low battery voltage	Charge or replace battery. Check charging circuit.
1 per second repeating	Low battery voltage	Charge or replace battery. Check charging circuit.
2 Short with error code	See POST message on screen.	
2 Short	Motherboard failure	Check motherboard.

MR BIOS (Microid Research) v3.40 – 3.46

(This version of MR BIOS uses two different pitched tones, referred to as low (L) and high (H). Hyphens indicate pauses.)

LH-LLL	ROM BIOS checksum error	Check motherboard.
LH-HLL	DMA page register error	Check motherboard.
LH-LHL	Keyboard controller error	Check keyboard controller.
LH-HHL	RAM refresh error	Check RAM.
LH-LLH	DMA Controller 0 error	Check motherboard.
LH-HLH	DMA Controller 1 error	Check motherboard.
LH-LLLL	Error in 1st 64 KB of RAM – Pattern	Check RAM.
LH-HLLL	Error in 1st 64 KB of RAM – Parity Generator	Check RAM.
LH-LHLL	Error in 1st 64 KB of RAM – Parity Check	Check RAM.
LH-HHLL	Error in 1st 64 KB of RAM – Data	Check RAM.
LH-LLHL	Error in 1st 64 KB of RAM – Address	Check RAM.
LH-HLHL	Error in 1st 64 KB of RAM – Block Read	Check RAM.
LH-LHHL	Error in 1st 64 KB of RAM – Block Write	Check RAM.
LH-HHHL	PIC 1	
LH-LLLH	PIC 2	
LH-HLLH	PIC 1 address failure	
LH-LHLH	PIC 2 address failure	
LH-HHLH	PIC Address error	
LH-LLHH	PIC 1 stuck interrupt	
LH-HLHH	PIC 2 stuck interrupt	
LH-LHHH	PIT IRQ failure	
LH-HHHH	PIT 1	
LH-LLLLH	PIT 2	
LH-HLLLH	PIT Output failure	
LH-LHLLH	CMOS RAM error	
LH-HHLLH	RTC interrupt error	
LH-LLHLH	Video ROM checksum error	Check video adapter.
LH-HLHLH	Keyboard controller error	Check motherboard.
LH-LHHLH	RAM parity error	Check RAM.
LH-HHHLH	I/O Channel error	Check motherboard.
LH-LLLHH	A-20 Timeout error	
LH-HLLHH	A-20 Stuck disabled	
LH-LHLHH	A-20 Stuck enabled.	

Phoenix 4.0

(Phoenix uses the same beep code types as Dell. There are no long or short beeps; the pattern is determined by the number of beeps between each pause.)

1-1-1-3	Verify real mode error	
1-1-2-1	Get CPU type error	
1-1-2-3	System hardware initialization failure	
1-1-3-1	Initialization of chipset with initial POST values error	
1-1-3-2	Set initial POST values in POST flag error	
1-1-3-3-	CPU register initialization failure	
1-1-4-1	Initialize cache with initial POST values error	
1-1-4-3	I/O initialization error	
1-2-1-1	Power management initialization error	
1-2-1-2	Initial POST values to Alternate registers	
1-2-1-3	User batch 0	
1-2-2-1	Keyboard controller initialization error	Check motherboard.
1-2-2-3	ROM BIOS checksum error	
1-2-3-1	8254 Timer initialization	
1-2-3-3	8237 DMA controller initialization	
1-2-4-1	Reset PIC	
1-3-1-1	DRAM refresh test failure	
1-3-1-3	8742 Keyboard controller test failure	
1-3-2-1	Set ES segment to register to 4 GB	
1-3-3-1	Autosize DRAM	
1-3-3-3	Clear 512k base RAM	
1-3-4-1	512k base address lines test failure	
1-3-4-3	512k base memory test	
1-4-1-3	CPU bus clock frequency test	
1-4-2-4	Reinitialize the chipset	
1-4-3-1	Shadow system ROM BIOS	
1-4-3-2	Reinitialize the cache	

1-4-3-3	Autosize cache	
1-4-4-1	Configure advanced chipset registers	
1-4-4-2	CMOS values to alternate registers	
2-1-1-1	Set initial CPU speed	
2-1-1-3	Interrupt vectors initialization	
2-1-2-1	BIOS interrupts initialization	
2-1-2-3	Check ROM copyright notice	
2-1-2-4	PCI options ROM initialization	
2-1-3-1	Check video configuration against CMOS	
2-1-3-2	Initialize PCI bus and devices	
2-1-3-3	Video initialization	
2-1-4-1	Shadow video BIOS ROM	
2-1-4-3	Display copyright notice	
2-2-1-1	Display CPU type and speed	
2-2-1-3	Keyboard test failure	
2-2-2-1	Set key click	
2-2-2-3	Keyboard enable	
2-2-3-1	Unexpected interrupts test failure	
2-2-3-3	Display "Press F2 to enter Setup"	
2-2-4-1	512k to 640k RAM test failure	Check RAM.
2-3-1-1	Expanded memory test failure	Check RAM.
2-3-1-3	Extended memory address lines test	Check RAM.
2-3-2-1	User batch 1	
2-3-2-3	Configure advanced cache registers	
2-3-3-1	External/CPU cache enable	
2-3-3-3	Display external cache size	
2-3-4-1	Display shadow message	
2-3-4-3	Display non-disposable segments	
2-4-1-1	Display error messages	
2-4-1-3	Check for configuration	

	errors	
2-4-2-1	Real-time clock test failure	
2-4-2-3	Check for keyboard errors	
2-4-4-1	Set up hardware interrupt vectors	
2-4-4-3	NPU test failure	
3-1-1-1	Disable onboard I/O ports	
3-1-1-3	Detect/install external RS232 ports	
3-1-2-1	Detect/install external parallel ports	
3-1-2-3	Reinitialize onboard I/O ports	
3-1-3-1	BIOS data area initialization	
3-1-3-3	Extended BIOS data area initialization	
3-2-1-1	Hard drive controller initialization	
3-2-1-2	Local bus hard drive controller initialization	
3-2-1-3	User batch 2	
3-2-2-1	Disable A-20 address line	
3-2-2-3	Clear 4 GB ES segment register	
3-2-3-1	Search for Option ROMs	
3-2-3-3	Shadow option ROMs	
3-2-4-1	Set up power management	
3-2-4-3	Hardware interrupts enable	
3-3-1-1	Set time of day	
3-3-1-3	Key lock test	
3-3-3-1	Erase F2 prompt	
3-3-3-3	Scan for F2 key stroke	
3-3-4-1	Enter Setup	
3-3-4-3	Clear POST flag	
3-4-1-1	Check for errors	
3-4-1-3	Prepare to boot operating systems	
3-4-2-1	One beep	
3-4-2-3	Password check	
3-4-3-1	Clear global descriptor table	
3-4-4-1	Clear parity checkers	
3-4-4-3	Clear screen	
3-4-4-4	Virus/backup reminder check	
4-1-1-1	Boot with INT 19	

4-2-1-1	Interrupt handler error	
4-2-1-3	Unknown interrupt error	
4-2-2-1	Pending interrupt error	
4-2-2-3	Option ROM error initialization	
4-2-3-1	Shutdown error	
4-2-3-3	Extended block move	
4-2-4-1	Shutdown I/O error	
4-3-1-3	Chipset initialization	
4-3-1-4	Refresh counter initialization	
4-3-2-1	Forced flash check	
4-3-2-2	Hardware status of ROM check	
4-3-2-3	ROM BIOS OK test failure	
4-3-2-4	RAM test failure	Check RAM.
4-3-3-1	OEM initialization	
4-3-3-2	PIC initialization	
4-3-3-3	Read in bootstrap code	
4-3-3-4	Vector initialization	
4-3-4-1	Boot the flash program	
4-3-4-2	Boot device initialization	
4-3-4-3	Boot code read OK	

Quadtel

1 Short	Normal boot	
2 Short	CMOS IC error	Check the CMOS chip
1 Long, 2 Short	Video failure	Reseat or replace the video adapter.
1 Long, 3 Short	Peripheral controller error	Check the motherboard.