

**Model: ATXWDT**  
**Use B&B Watchdog Timers**  
**To Overcome PC Lock-Ups ☺**

**Introduction**

The ATX Watchdog Timer Card is designed to overcome the dangers or annoyances associated with PCs locking up. PCs used in remote or dial-up applications, to control external devices, or performing data acquisition can all benefit from a watchdog. If the controlling software hangs or crashes, the watchdog will timeout and use the ATX/ATX12V power supply to turn the computer off for 10 seconds, then turn it on again. The application software must reset the card's counter every timeout period to prevent the watchdog from rebooting the computer. The ATXWDT has a SPDT Form C Relay output to allow an external device or alarm to be controlled.

**Features**

- Software selectable timeout period from 0.5 to 512 seconds  
Range can be increased with hardware modifications
- 4 bit read/write timeout register
- Software enable and disable
- Form C relay output to control external device
- Non-splicing connection to ATX/ATX12V power supply

**Specifications**

Dimensions: 2.6"H x 4.1"L  
Address: Occupies 8 bytes of address spac  
selectable from 0 to 3FFh  
Power: 1.75W maximum  
Output spec: Form C Relay, SPDT output  
Maximum ratings  
24 VDC at 1.0 A  
115 VAC at 0.5 A  
Connector: DB-9 male

**Connections**

In order for the ATXWDT to restart the host computer, a connection must be made between the ATX/ATX12V power supply and the ATXWDT. A jumper wire is provided with the ATXWDT to make this connection. Note that some PCs do not have the ATX/ATX12V power supply. The ATX/ATX12V power supply will be a single 20-pin connector to the motherboard. If there are two connectors from the power supply to the motherboard this is not an ATX/ATX12V power supply. An additional Form C Relay output connection can be made through the DB9 connector to an external alarm or to shut down another device.

**Operation**


The ATXWDT can be programmed as a countdown timer to countdown from 0.5 seconds to 512 seconds. A simple command, such as an OUT statement in BASIC, must be added to the host computer software. Every time this statement is executed, the timer is reset. If the code quits executing for any reason, the watchdog turns off the computer for about ten seconds, after the timeout is reached. This timeout can be read back to make sure you entered the right timeout to the right address.

**Software**

The software shipped with the ATXWDT includes example software for Windows 3.11, Windows 95/98 and Windows NT written for Borland C++ 5.01, Microsoft Visual C++ 4.0 and Microsoft Visual BASIC 4.0. Also included is a Windows NT 4.0 device driver, no driver is required for DOS or Windows 95.

**DECLARATION OF CONFORMITY**

Manufacturer's Name: B&B Electronics Manufacturing Company  
Manufacturer's Address: P.O. Box 1040  
707 Dayton Road  
Ottawa, IL 61350 USA  
ATXWDT  
Model Numbers: PC ISA Watchdog Card  
Description: Light industrial ITE equipment  
Type: 89/336/EEC  
Application of Council Directive: EN55022  
Standards: EN50082-1:  
EN61000 (-4-2, -4-3, -4-4, -4-6)

  
William H. Franklin III, Director of Engineering

**B&B's Watchdog Family Selection Guide**

Model	Bus	Timeout Register	Operating System	Output Relay Connector	Reboot Connector
ATRWDT	ISA	4-bit, read-write, 1-bit reset flag	DOS, Win 9x, Windows NT	DB9 Male	Motherboard reset pins
ATXWDT	ISA	4-bit, read-write	DOS, Win 9x, Windows NT	DB9 Male	ATX/ATX12V Power Supply Connector
PCWDT	ISA	4-bit, write only	DOS, Win 9x, Windows NT	DB25 Male	Motherboard reset pins
PCIRWDT	PCI	4-bit, read-write, 1-bit reset flag	Windows 98/2000/ME/NT	DB9 Male	Motherboard reset pins
PCIXWDT	PCI	4-bit, read-write	Windows 98/2000/ME/NT	DB9 Male	ATX/ATX12V Power Supply Connector

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