

# 1. Watchdog Programs

There are some test programs and sample batch files on the enclosed diskette for testing the watchdog board. Some of these commands use switches to determine which user port to check to get status or perform commands.

## 1.1 DIP Switch Find Program

This program is used to get the dip switch settings for the address decode. The name of this program is: **DIP-FIND.EXE**. This program will prompt you for an I/O address that should be entered in HEX. It will then return a graphical depiction of the switch settings.

## 1.2 Watchdog Test Program

This program is used to test the watchdog board. The name of this program is: **WD-TEST.EXE**.

When this program runs it will provide a return code that can be tested to check the status of the watchdog board. The codes are:

- 0x00:** Watchdog OK. Normal PC reset.
- 0x01:** Watchdog tripped.
- 0x02:** Temperature tripped.
- 0x03:** Watchdog and Temperature tripped.

The program will also display a message on the screen to indicate the status of the board and it will clear the reset bit after testing.

The switches for this program are:

- /p1** - Use I/O Port 0x0270. (default)
- /p2** - Use I/O Port 0x0350.
- /p3** - Use I/O Port 0x0370.

<b>EX:</b> C:>wd-test /p2
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## 1.3 WDOG-TSR.COM

When this program loads it will attach to the PC timer interrupt and use it to keep the PC Watchdog time-out counter updated. It will default to I/O Port **0x0270**.

The switches for this program are:

**/p1** - Use I/O Port 0x0270. (default)  
**/p2** - Use I/O Port 0x0350.  
**/p3** - Use I/O Port 0x0370.

<b>EX:</b> C:>wdog-tsr /p2
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If the program loads successfully it will display a log-on message indicating the I/O port it is monitoring. It will also return the following Completion Codes:

**00** - Load successful.  
**01** - Already installed.

If you want to unload the TSR after it is running then use the following command line switch:

**/u** - Unload if possible.

<b>EX:</b> C:>wdog-tsr /u
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The program will attempt to find the old copy in memory and then unload it as long as no other program has come along and changed the interrupt vectors after the TSR was loaded. Try to make this the last TSR that you load if you want to unload it later. The program will display a message if the unload fails or passes. It will also return the following Completion Codes that can be tested in a batch file:

**00** - Unload successful.  
**02** - Can't find TSR in memory.  
**03** - Can't unload, interrupts vectors have been modified.

Please note that there is not any robust error checking on the command line parameters. If a **"/u"** is found, everything else is ignored and the TSR will immediately proceed to attempt an unload. Invalid switches will be ignored.

## 1.4 TIMERTSR.COM

This program works exactly like, and uses the same command line switches as *WDOG-TSR.COM* described in the prior section, however it is larger and uses more memory. It differs in the fact that it allows you to set a start and end time to allow a time window when the program becomes active. The new switches are:

**/sHHMM** - start time Hours and Minutes (24 Hour Mode 0000-2359).

**/eHHMM** - end time.

<b>EX:</b> C:>timertsr /p2 /s1100 /e1530
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This TSR will return the same return codes as *WDOG-TSR.COM* as well as the following if the times are missing or invalid:

**04** - Invalid time values.

It is a good idea to allow a little extra time at the beginning and end of the time window since some PC clocks are notoriously inaccurate!

This TSR is useful for systems that shut down at a certain time each day for maintenance. While the system is shut down this TSR can take over and keep the watchdog board tickled.

## 1.5 PC-RESET.EXE

This program checks the PC Watchdog to see if it generated the reset. It will also check the temperature status if that option is installed. It defaults to looking for the user status port at I/O address **0x0270**.

The switches for this program are:

**/p1** - Use I/O Port 0x0270. (default)

**/p2** - Use I/O Port 0x0350.

**/p3** - Use I/O Port 0x0370.

<b>EX:</b> C:>pc-reset /p2
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The program will write a file called WD\_RESET.LOG. If this file does not exist then one will be created the first time it is run. Each line in the file will have a format similar to those show below:

Reset:11:50:33	07/14/1996	*	Type:Watchdog	*	Temp Stat:TRIP	*	Current Temp:22°C
Reset:11:55:35	07/15/1996	*	Type:Normal	*	Temp Stat:OK	*	Current Temp:25°C

The program will also return the following Completion Codes:

- 00** - Completed successfully.
- 01** - Error on file open or create.

## 1.6 WD-DABLE.EXE & WD-EABLE.EXE

These two programs are used to disable and enable the PC Watchdog. They default to the looking for the user status port at I/O address **0x0270**.

The switches for these programs are:

- /p1** - Use I/O Port 0x0270. (default)
- /p2** - Use I/O Port 0x0350.
- /p3** - Use I/O Port 0x0370.

<b>EX:</b> C:>wd-dable /p2
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Make sure that the watchdog board is disabled before attempting maintenance such as a disk defrag. *If the watchdog resets the PC you could suffer permanent data loss. Make sure that the disable program reports that the board was found and that the board was disabled!*

The programs return the following Completion Codes that can be tested in a batch file:

- 00** - Operation successful.
- 01** - Error - can't find board or can't disable