

## Modem testing on RocketModem II/III/IV

In some WindowsXP and Windows2000 systems, you may not have a Control Program group from the start menu when using the RocketPort PCI adapter. If you do not have the Control Program group, you may download the utility apps from the provided link. The file downloaded is a self extracting zip file that once the file has been extracted will automatically begin an installation procedure. It will not be necessary to reboot the PC once the installation of the utilities has completed.

Control Utilities for RocketModem adapters:

[ftp://ftp.comtrol.com/utilities/windows/comtrol\\_utility/comtrol\\_utility\\_package\\_v4.11.msi](ftp://ftp.comtrol.com/utilities/windows/comtrol_utility/comtrol_utility_package_v4.11.msi)

### Stop all modem applications:

Stop all applications that may be accessing the ports such as RAS, RRAS or any faxing or production software. See the appropriate manuals for instructions on stopping these services or applications as supplied by the vender. If another application is controlling the port, then Test Terminal will be unable to open the port and an error message will be shown.

*Remember to restart the application once testing of the ports has been completed.*

### Very Cold Boot procedure:

If this is not a RocketModem II skip the Very Cold Boot procedure and continue to the "Testing Modems using Wcom2"

On system boot-up, the RocketModemII driver installed in the PC will upload to each modem some firmware instructions. These instructions are kept in a volatile flash that can become corrupted, such as when a power surge hits the modem.

In the event that the flash is corrupted the RocketModemII may have modems that quit responding. This is usually noticed when a modem will no longer answer incoming calls. This is a non-responsive condition that is caused by one of the modems volatile flash becoming corrupted. A modem in this condition will also not be detected in Plug-n-Play operating systems and as a result will not be present in the OS and most likely will not be present for the application.

Due to the nature of the newer PC's supporting wake on LAN features, a small amount of power must be provided to the system components even when the PC is turned off. This amount of power is enough to prevent the RocketModemII modem flash from completely clearing itself. Unless the flash completely clears itself, it will prevent the new instruction set from properly loading to the modems volatile flash the next time the driver loads on system bootup.

The fix in this instance is to perform what we call, a 'very cold boot' of the server. This means shutting down and unplugging the power cord to the PC itself. This will shut off all power to the PC and allow the volatile flash to clear itself, thus enabling a good install of the instruction set into the flash as the driver loads.

### Testing Modems using Wcom2

The following test may be used to ensure functionality of the modems.

Test 1:

The following procedure checks to see if the modem responds.

1. Type **atz**. This should return an **OK**.
2. Type **at&v**. This should display the modem configuration.

Test 2:

The following test calls from the modem to an ordinary telephone.

1. Connect the modem to a phone line.
2. Enter **atdt phonenumber** (*phonenumber* is the phone number of a standard telephone.) The telephone should ring.
3. Enter **+++ath** to hang up.

### Test 3:

The following test calls from an ordinary telephone to the modem.

1. Connect the modem to a phone line.
2. Dial **phonenumber** of the modem, from the ordinary telephone.
3. The word "**RING**" should appear on the screen each time the phone rings.
4. Enter **ata** to answer the call.
5. You should hear the modem answer and hear the modem tones while the modem tries to detect a carrier.
6. Enter **+++ath** to hang up.

### Test 4:

You can use this procedure to test two modems. This example requires that phone lines be connected to both Ports 1 & 2.

1. Connect two modems to phone lines.
  2. Open two Test Terminal sessions.
  3. In the 1<sup>st</sup> Test Terminal open Select **Port 1**.
  4. Press **Esc** to return to the port menu.
  5. Select **Port 2**.
  6. Enter **AT&F0** to initialize the second modem.
  7. Enter **ATDxxx xxxx** (where xxx xxxx is the phone number of the line connected to the first modem).
- Watch and wait. The Port 2 modem should dial the Port 1 modem and you should eventually see the CONNECT message.
8. Press **Ctrl c** to terminate the call.
  9. Reverse the procedure to test in the other direction.
  10. Test other ports using the same procedure

All of these tests should pass. If they do pass, you should look for the answer in the customer application or in the telephone switch configuration.

### Testing and resetting the factory default init of the RocketModem, RocketModemII or RocketModemIII

Connect two phone lines to two modems

Open Test Terminal.

- 1.) Start menu>programs>Control RocketPort RocketModem>Test Terminal
  - 2.) port>openport>comx (usually the starting port of the unit such as COM3)
  - 3.) select Settings>Port Settings...> Set the baud rate to 115200k, 8,N,1.
  - 4.) Type **AT** Enter (you may see the AT on the screen and when the enter key is pressed OK should be returned.) (If the AT is not displayed type **ATE1** Enter, then type **AT** Enter. Does the AT now display with the OK? if yes proceed, if No, follow the Very Cold Boot procedure above if RocketModem II.)
  5. Enter **AT&F0** to initialize the modem to factory default parameters.
  6. Enter **ATS0=1** to direct the modem to answer the phone on the first ring.
  - 7.) port>openport>comx+1 (generally COM4)
  - 8.) select Settings>Port Settings...> Set the baud rate to 115200k, 8,N,1.
  - 9.) Type **AT** Enter (you see the AT on the screen and when the enter key is pressed OK should be returned.) (If the AT is not displayed type **ATE1** enter, type **AT** enter. Does the AT now display with the OK? if yes proceed, if No, follow the Very Cold Boot procedure below.)
  - 10.) type **AT&F&W0&W1** press Enter (you should get an OK response)
  - 11.) repeat for all remaining ports
  - 12.) windows>tile
  - 13.) dial out from COM3 into COM4 (atdt phone#-of-COM4)
  - 14.) COM4 should show the word RING.
- To cause COM4 to answer, enter the command in COM4 **ats0=1** Enter and it should now answer after 1 ring.
- 15.) Check the connection speed.
  - 16.) type in **+++AT&V1** Enter. View the results
  - 17.) type in **ATO** Enter to exit command mode (Letter O not the number 0)
  - 18.) type in anything on COM3 and this should appear in the COM4 window
  - 19.) if data is transferred, the test is complete.
  - 20.) hang up by typing **+++ath** in one of the active com ports
  - 21.) Close Test Terminal and restart RAS or your application