

If your software suggests an initialization string for this modem, you should use it. This string of commands will be sent to the modem each time you start the communications program, assuming the modem is already turned on. If this modem is not listed by your software and no initialization string is suggested, use the following initialization string:

For PC-compatibles: AT &F &C1 &D2 For Macintosh: AT &F

Note, however, that if you have saved any settings in the modem's non-volatile memory (described in a later section of this document), the contents of the initialization string will override what you have stored there. In particular, the &F command resets the modem to factory default values. Therefore, if you have saved non-default settings in non-volatile memory, remove the &F from the initialization string.

If the software does not provide a dial string, use ATDT

If your telephone service includes "Call Waiting" and you can turn it off by dialing \*70 before the telephone number, use the following dial string instead of the one above:

Dial String: ATDT\*70, (Note: be sure to enter the ,)

If your software asked you to specify the type of modem you are using, there is probably nothing you need to do to configure it further. However, if you did not specify the type of modem, you can check the following settings (which should resemble this list):

Dialing command suffix: <CR> or ^M or ! [Note: This differs from one program to another.]

Hangup command: ~~~+++~~~ATH0 <CR> [Note: ~ means pause. Use the pause character required by your program.]

Auto-answer command: ~~~+++~~~ATS0=1 <CR> [See previous Note.]

Wait for connection: 45 (seconds)

Pause between redial: 1 (second)

Auto-baud detect: ON

Drop DTR to hang up: YES

Send init if CD high? YES

Some older software packages have instructions for setting the modem's DIP switches because many 1200 bps modems used DIP switches for configuration. To use your modem's non-volatile memory, you just issue a single command to "set" each "switch". Enter these AT commands via your software's "terminal" mode. From then on, the modem will always power-up with the right setting, unless you issue a command to change the setting.

The chart below shows how the non-volatile memory duplicates the function of the DIP switches, and shows the memory's factory default configuration. If you are experiencing a problem with your modem, particularly if your software will not acknowledge the modem, is unable to dial, or says that carrier is not present before the modem has dialed, check to see what your software requires for the settings of Data Terminal Ready (DTR) and Data Carrier

Detect (DCD). If you need to change the settings, refer to the chart below.

DIP SWITCH EQUIVALENT	DIP SWITCH SETTING	FUNCTION	CORRESPONDING AT COMMAND (* = Default)
1	UP DOWN	Modem Follows DTR Modem Ignores DTR	AT&D2&W0&Y0 AT&D0&W0&Y0     *
2	UP DOWN	Verbal Result Codes Numeric Result Codes	ATV1&W0&Y0     * ATV0&W0&Y0
3	UP DOWN	Result Codes Disabled Result Codes Enabled	ATQ1&W0&Y0 ATQ0&W0&Y0     *
4	UP DOWN	In Local Command State, Echo Characters In Local Command State, Do Not Echo Characters	ATE1&W0&Y0     * ATE0&W0&Y0
5	UP DOWN	Auto-answer On Auto-answer Off	ATS0=1&W0&Y0 ATS0=0&W0&Y0     *
6	UP DOWN	DCD Follows Carrier Forces DCD Always On	AT&C1&W0&Y0 AT&C0&W0&Y0     *

Many communications programs for PC-compatible (but not Macintosh) computers require that the modem be configured using &C1 and &D2. These settings can be saved in non-volatile memory, as described above. Alternately, &C1&D2 can be included in the software's "modem initialization string."

There are other AT commands that can be stored using non-volatile memory, as well. For example, to increase or decrease the speaker volume, type ATL3&3W0&Y0. Substitute L1 for L3 to decrease the volume.

If you ever want to switch ALL of the settings back to the factory default configuration, use the command: AT&F

The following are the most common causes for error:

1) If all the characters that you type appear twice on the screen, your communications software may be set for "half-duplex" when it should be set for "full duplex". This can be corrected by using your communications software configuration menu to change from half to full duplex.

2) Your software's selection of the number of data bits, the parity, and the number of stop bits is different from the modem that you're calling. You should normally use 8 data bits, NO parity, and 1 stop bit (8,NONE,1). The second most common setting is 7 data bits, EVEN parity, and 1 stop bit (7,EVEN,1). If you call another modem and connect, but get incomprehensible characters displayed (even after some normal connection noise), try changing these settings.

3) You are calling a modem set up for one speed, and you are at a different speed. Some 2400 bps information services have dedicated lines that can only communicate at 2400 bps. Therefore, if you call them with a 300 or 1200 bps

modem speed you will not be able to communicate. On the other hand, many bulletin boards and other services will adjust to the speed of the calling modem.

4) Your communications software has not been set up properly. Re-check the Initialization String and Dial String specified in your software manual and in "Setting Up Your Communications Software". Remember that commands in the initialization string are sent to the modem each time you start your software and will override settings stored in the modem's non-volatile memory. Many communications programs for PC-compatible computers require that the modem be configured using &C1 and &D2, using either the modem's non-volatile memory or the software's "modem initialization string".

If you are using a Macintosh, however, you may not be able to receive modem calls if &D2 has been saved in non-volatile memory or if it appears in the initialization string. Use the modem's default setting, &D0, instead.

5) You are turning your modem on after you start up your software. This can cause a problem because most programs will send an initialization string to the modem when the software starts up. If the modem is off at the time, it will not receive the initialization string. Solution: Turn on your modem, then start up your software.

6) Your modem's power-on setup is not what your communications software wants. Be sure you know what setting the software wants, and re-read "Using Non-volatile Memory Instead of DIP Switches for Power-up Configuration". In general, you can use the software's modem initialization string to solve this type of problem.

7) Your software does not allow you to set up the modem to auto-answer in a sufficiently flexible way. To enable auto-answer without using your software's menus, use your program's terminal mode and type ATSO+n (where n=the number of rings to wait before answering). Turn off auto-answer with ATSO=0

(smm 07/28/93)