



Configuring and Troubleshooting Modems

This appendix contains information to help you to set modem strings and troubleshoot your modem connections to Cisco routers. For information about configuring lines to support modems, refer to the chapters in the part “Modem Configuration and Management” in the *Cisco IOS Dial Services Configuration Guide: Terminal Services* publication.

Modem Settings for Use in Strings

Table 160 contains required settings and error compression (EC) and compression settings for specific modem types. Use this information to create your modem scripts. Table 161 contains information for setting AUX ports and general comments. Refer to Table 162 for a legend of symbols used in these two tables.

Table 160 Required Settings and EC/Compression Settings

Settings Required for All Modems					Settings for EC/Compression					
Modem	FD	AA	CD	DTR	RTS/CTS Flow	LOCK DTE Speed	Best Error	Best Comp	No Error	No Comp
Codex 3260	&F	S0=1	&C1	&D3	*FL3	*SC1	*SM3	*DC1	*SM1	*DC0
USR Courier USR Sportster	&F	S0=1	&C1	&D3	&H1&R2	&B1	&M4	&K1	&M0	&K0
Global Village Teleport Gold	&F	S0=1	&C1	&D3	\Q3	\J0	\N7	%C1	\N0	%C0
Telebit T1600/T3000/ WB	&F1	S0=1	&C1	&D3	S58=2 S68=2	S51=6	S180=2 S181=1	S190=1	S180=0 S181=1	S190=0
Telebit T2500 (ECM)	&F	S0=1	&C1	&D3	S58=2 S68=2	S51=6	S95=2	S98=1 S96=1	S95=0	S98=0 S96=0
Telebit Trailblazer	&F	S0=1	&C1							
AT&T Paradyne Dataport	&F	S0=1	&C1	&D3	\Q3	--->	\N7	%C1	\N0	%C0

Table 160 Required Settings and EC/Compression Settings (continued)

Settings Required for All Modems					Settings for EC/Compression					
Modem	FD	AA	CD	DTR	RTS/CTS Flow	LOCK DTE Speed	Best Error	Best Comp	No Error	No Comp
Hayes modems Accura/ Optima	&F	S0=1	&C1	&D3	&K3	&Q6	&Q5	&Q9	&Q6	<---
Microcom QX4232 series	&F	S0=1	&C1	&D3	\Q3	\J0	\N6	%C1	\N0	%C0
Motorola UDS FastTalk II	&F	S0=1	&C1	&D3	\Q3	\J0	\N6	%C1	\N0	%C0
Multitech MT1432 MT932	&F	S0=1	&C1	&D3	&E4	\$BA0	&E1	&E15	&E0	&E14
Digicom Scout Plus	&F	S0=1	&C1	&D3	*F3	*S1	*E9	<---	*E0	<---
Digicom SoftModem	&F	S0=1	&C1	&D3	&K3	--->	\N5	%C1	\N0	%C0
Viva 14.4/9642c	&F	S0=1	&C1	&D3	&K3	--->	\N3	%M3	\N0	%M0
ZyXel U-1496E	&F	S0=1	&C1	&D3	&H3	&B1	&K4	<---	&K0	<---
Supra V.32bis/28.8	&F	S0=1	&C1	&D3	&K3	--->	\N3	%C1	\N0	%C0
ZOOM 14.4	&F	S0=1	&C1	&D3	&K3	--->	\N3	%C2	\N0	%C0
Intel External	&F	S0=1	&C1	&D3	\Q3	\J0	\N3	%C1"H3	\N0	%C0
Practical Peripherals	&F	S0=1	&C1	&D3	&K3	--->	&Q5	&Q9	&Q6	<---

Table 161 AUX and Platform Specific Settings

Modem	Settings for Use with AUX Port		Other Settings		Comments
	No Echo	No Res	CAB-MDCE	Write Memory	
Codex 3260	E0	Q1	&S1	&W	
USR Courieræ USR Sportster	E0	Q1	*NA*	&W	
Global Village Teleport Gold	E0	Q1	*NA*	&W	
Telebit T1600/T3000/ WB	E0	Q1	&S4	&W	All Telebit modems need to have the speed set explicitly. These examples use 38400 bps. Using what Telebit calls “UNATTENDED ANSWER MODE” is the best place to start a dial in only modem.
Telebit T2500 (ECM)	E0	Q1	&S1	&W	
Telebit Trailblazer	E0	Q1	*NA*	&W	Use “ENHANCED COMMAND MODE” on the T2500.
AT&T Paradyne Dataport	E0	Q1	*NA*	&W	Almost all Microcom modems have similar configuration parameters.
Hayes modems Accura/ Optima	E0	Q1	*NA*	&W	
Microcom QX4232 series	E0	Q1	*NA*	&W	
Motorola UDS FastTalk II	E0	Q1	*NA*	&W	
Multitech MT1432 MT932	E0	Q1	&S1	&W	
Digicom Scout Plus	E0	Q2	&B2	&W	
Digicom SoftModem	E0	Q1	&S1	&W	
Viva 14.4/9642c	E0	Q1	&S1	&W	
ZyXel U-1496E	E0	Q1	&S1	&W	Additional information on ftp.zyxel.com
Supra V.32bis/28.8	E0	Q1	&S1	&W	
ZOOM 14.4	E0	Q1	&S1	&W	

Table 161 AUX and Platform Specific Settings (continued)

Modem	Settings for Use with AUX Port		Other Settings		Comments
	No Echo	No Res	CAB-MDCE	Write Memory	
Intel External	E0	Q1	*NA*	&W	
Practical Peripherals	E0	Q1	*NA*	&W	Based on PC288LCD. May vary.

Table 162 contains a legend of symbols used in Table 160 and Table 161.

Table 162 Legend to Symbols Used in Modem Chart

Symbol	Meaning
NA	This option is not available on the noted modem.
-->	The command noted on the right will handle that function.
<--	The command on the left will handle that function.
AUX port	These parameters are only required for pre-9.21 AUX ports or any other port without modem control set.

Modem Troubleshooting Tips

Table 163 contains troubleshooting tips on modem access and control.

Table 163 Modem Troubleshooting Tips

Problem	Likely Cause
Connection refused.	Someone already has a connection to that port -or- an XEC is running on that port -or- the modem failed to lower CD after a call disconnected, resulting in an EXEC that remained active after disconnect. To force the line back into an idle state, clear the line from the console and try again. If it still fails, ensure that you have set modem inout command for that line. If you don't have modem control, either turn off EXEC on the line (by using the exec-timeout line configuration command) before making a reverse connection or configure the modem using an external terminal. As a last resort, disconnect the modem, clear the line, make the Telnet connection, and then attach the modem. The prevents a misconfigured modem from denying you line access.
Connection appears to hang.	Try entering “^U” (clear line), “^Q” (XON), and press Return a few times to try to establish terminal control.

Table 163 Modem Troubleshooting Tips

EXEC does not come up, autoselect is on.	Press Return to enter EXEC.
Modem does not hang up after entering quit .	The modem is either not receiving DTR information, or you have not set up modem control on the router.
Interrupt another user's session when you dial in.	The modem is either not dropping CD on disconnect, or you have not set up modem control on the Cisco router.
Connection hangs after entering “+++” on the dialing modem, followed by an ATO.	The answering modem saw and interpreted the “+++” when it was echoed to you. This is a bug in the answering modem, common to many modems. There may be a switch to work around this problem; check the modem's documentation.
Losing data.	You may have Hardware Flow Control only on for either the router's line (DTE) or the modem (DCE). Hardware Flow Control should be on for both or off for both, but not for only one.
Using MDCE.	Turn MDCE into an MMOD by moving pin 6 to pin 8 because most modems use CD and not DSR to indicate the presence of carrier. You can also program some modems to provide carrier info via DSR.

Sample Modem Scripts

The following are several modem command strings that are appropriate for use with your access server or router. For use with the access server, **Speed=xxxxxx** is a suggested value only. Set the DTE speed of the modem to its maximum capability. By making a reverse Telnet connection in the EXEC mode to the port on the access server where the modem is connected, then sending an **at** command followed by a carriage return.

In the following example, the modem is attached to asynchronous interface 2 on the access server. The IP address indicated as the server-ip-address is the IP address of the Ethernet 0 interface. The administrator connects from the EXEC to asynchronous interface 2, which has its IP address assigned from Ethernet 0.

```
2511> telnet server-ip-address port-number
          192.156.154.42      2002
```

AST Premium Exec Internal Data/Fax (MNP 5)

```
Init=AT&F&C1&D3\G0\J0\N3\Q2S7=60S0=1&W
Speed=9600
```

ATi 9600etc/e (V.42bis)

```
Init=AT&FW2&B1&C1&D3&K3&Q6&U1S7=60S0=1&W
Speed=38400
```

AT&T Paradyne KeepInTouch Card Modem (V.42bis)

```
Init=AT&FX6&C1&D3\N7\Q2%C1S7=60S0=1&w
Speed=57600
```

AT&T ComSphere 3800 Series (V.42bis)

```
Init=AT&FX6&C1&D2\N5\Q2%C1"H3S7=60S0=1&W
Speed=57600
```

AT&T DataPort Fax Modem (V.42bis)

```
Init=AT&FX6&C1&D2\N7\Q2%C1S7=60S0=1&W
Speed=38400
```

Boca Modem 14.4K/V.32bis (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5%C1\N3S7=60S36=7S46=138S95=47S0=1&W
Speed=57600
```

CALPAK MXE-9600

```
Init=AT&F&C1&D3S7=60S0=1&W
Speed=9600
```

Cardinal 2450MNP (MNP 5)

```
Init=AT&F&C1&D3\J0\N3\Q2\V1%C1S7=60S0=1&w
Speed=9600
```

Cardinal 9650V32 (MNP)

```
Init=AT&F&B1&C1&D3&H1&I1&M6S7=60S0=1&W
```

Cardinal 9600V42 (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5\N3%C1%M3S7=60S46=138S48=7S95=3S0=1&W
Speed=38400
```

Cardinal 14400 (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5\N3%C1%M3S7=60S46=138S48=7S95=47S0=1&W
Speed=57600
```

COMPAQ SpeedPAQ 144 (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5\J0\N3%C1S7=60S36=7S46=2S48=7S95=47S0=1&W
Speed=57600
```

Data Race RediMODEM V.32/V.32bis

```
Init=AT&F&C1&D3&K3&Q6\J0\N7\Q3\V2%C1S7=60 Speed=38400S0=1&W
```

Dell NX20 Modem/Fax (MNP)

```
Init=AT&F&C1&D3%C1\J0\N3\Q3\V1W2S7=60S0=1&W
Speed=9600
```

Digicom Systems (DSI) 9624LE/9624PC (MNP 5)

```
Init=AT&F&C1&D3*E1*F3*S1S7=60S0=1&W
```

Digicom Systems (DSI) 9624LE+ (V.42bis)

```
Init=AT&F&C1&D3*E9*F3*N6*S1S7=60S0=1&W
Speed=38400
```

Everex Evercom 24+ and 24E+ (MNP 5)

```
Init=AT&F&C1&D3\J0\N3\Q2\V1%C1S7=60S0=1&W
```

Everex EverFax 24/96 and 24/96E (MNP 5)

```
Init=AT&F&C1&D3\J0\N3\Q2\V1%C1S7=60S0=1&W
Speed=9600
```

Everex Evercom 96+ and 96E+ (V.42bis)

```
Init=AT&FW2&C1&D3\J0\N3\Q2\V2%C1S7=60S0=1&W
Speed=38400
```

Freedom Series V.32bis Data/FAX Modem

```
Init=AT&F&C1&D3&K3&Q6\J0\N7\Q3\V2%C1S7=60S0=1&W
Speed=38400
```

Gateway 2000 TelePath

```
Init=AT&FW2&C1&D3&K3&Q5\N3%C1S7=60S36=7S46=138S48=7S95=47S0=1&W
Speed=38400
```

Gateway 2000 Nomad 9600 BPS Internal Modem

```
Init=AT&F&C1&D3%C1\J0\N3\Q2S7=60S0=1&W
Speed=38400
```

GVC SM-96V (V.42bis)

```
Init=AT&F&C1&D3%C1\J0\N6\Q2\V1S7=60S0=1&W
Speed=38400
```

GVC SM-144V (V.42bis)

```
Init=AT&F&C1&D3%C1\J0\N6\Q2\V1S7=60S0=1&W
Speed=57600
```

Hayes Smartmodem Optima 9600 (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S46=138S48=7S95=47S0=1&W
Speed=38400
```

Hayes Smartmodem Optima 14400 (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S46=138S48=7S95=47S0=1&W
Speed=57600
```

Hayes Optima 28800 (V.34)

```
Init=AT&FS0=1&C1&D3&K3&Q6&Q5&Q9&W
Speed=115200
```

Hayes V-series Smartmodem 9600/9600B (V.42)

```
Init=AT&F&C1&D3&K3&Q5S7=60S0=1&W
Speed=9600
```

Hayes V-series ULTRA Smartmodem 9600 (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5S7=60S46=2S48=7S95=63S0=1&W
Speed=38400
```

Hayes V-series ULTRA Smartmodem 14400 (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S38=10S46=2S48=7S95=63S0=1&W
Speed=38400
```

Hayes ACCURA 24 EC (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S36=7S46=138S48=7S95=47S0=1&W
```

Hayes ACCURA 96 EC (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S36=7S46=138S48=7S95=47S0=1&W
Speed=38400
```

Hayes ACCURA 144 EC (V.42bis)

```
Init=AT&FW2&C1&D3&K3&Q5S7=60S36=7S46=138S48=7S95=47S0=1&W
Speed=57600
```

Hayes ISDN System Adapter

```
Init=AT&FW1&C1&D3&K3&Q0S7=60S0=1&W
Speed=57600
```

IBM 7855 Modem Model 10 (MNP)

```
Init=AT&F&C1&D3\N3\Q2\V1%C1S7=60S0=1&W
```

IBM Data/Fax Modem PCMCIA (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5%C3\N3S7=60S38=7S46=138S48=7S95=47S0=1&W
Speed=57600
```

Identity ID9632E

```
Init=AT&F&C1&D3S7=60S0=1&W
Speed=9600
```

Infotel V.42X (V.42bis)

```
Init=AT&F&C1&D3S7=30S36=7S0=1&W
Speed=9600
```

Infotel V.32 turbo (V.42bis)

```
Init=AT&FW1&C1&D3&K3&Q5S7=60S0=1&W
Speed=38400
```

Infotel 144I (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5\N3%C1S7=60S36=7S46=138S48=7S95=47S0=1&W
Speed=38400
```

Intel 9600 EX (V.42bis)

```
Init=AT&F&C1&D3\J0\N3\Q2\V2%C1"H3S7=60S0=1&W
Speed=38400
```

Intel 14400 EX (V.42bis)

```
Init=AT&F&C1&D3\J0\N3\Q2\V2%C1"H3S7=60S0=1&W
Speed=38400
```

Macronix MaxFax 9624LT-S

```
Init=AT&F&C1&D3&K3&Q9\J0\N3\Q3%C1S7=60S36=7S46=138S48=7S95=47S0=1&W
Speed=9600
```

Megahertz T3144 internal (V.42bis)

```
Init=AT&F&C1&D3%C1\J0\N3\Q2\V2S7=60S0=1&W
Speed=57600
```

Megahertz T324FM internal (V.42bis)

```
Init=AT&F&C1&D3%C1\J0\N3\Q2\V1S7=60S46=138S48=7S0=1&W
Speed=9600
```

Megahertz P2144 FAX/Modem (V.42bis)

```
Init=AT&F&C1&D3%C1\J0\N7\Q2\V2S7=60S0=1&W
Speed=38400
```

Megahertz T396FM internal (V.42bis)

```
Init=AT&FW2&C1&D3%C1\J0\N7\Q2\V2S7=60S0=1&W
Speed=38400
```

Megahertz CC3144 PCMCIA card modem (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5%C3\N3S7=60S38=7S46=138S48=7S95=47S0=1&W
Speed=57600
```

Microcom AX/9624c (MNP 5)

```
Init=AT&F&C1&D3\G0\J0\N3\Q2%1S7=60S0=1&W
Speed=9600
```

Microcom AX/9600 Plus (MNP 5)

```
Init=AT&F&C1&D3\J0\N3\Q2S7=60S0=1&W
```

Microcom QX/V.32c (MNP 5)

```
Init=AT&F&C1&D3\J0%C3\N3\Q2S7=60S0=1&W
Speed=38400
```

Microcom QX/4232hs (V.42bis)

```
Init=AT&F&C1&D3\J0%C3\N3\Q2-K0\V2S7=60S0=1&W
Speed=38400
```

Microcom QX/4232bis (V.42bis)

```
Init=AT&F&C1&D3\J0%C3\N3\Q2-K0\V2W2S7=60S0=1&W
Speed=38400
```

Microcom Deskporte 28800 (V.34)

```
Init=AT&F&c1&q1E0S0=1&W
Speed=115200
```

Microcom MicroPorte 542 (V.42bis)

```
Init=AT&F&C1&D3&Q5S7=60S46=138S48=7S95=47S0=1&W
Speed=9600
```

Microcom MicroPorte 1042 (V.42bis)

```
Init=AT&F&C1&D3%C3\J0-M0\N6\Q2\V2S7=60S0=1&W
Speed=9600
```

Microcom MicroPorte 4232bis (V.42bis)

```
Init=AT&F&C1&D3%C3%G0\J0-M0\N6\Q2\V2S7=60S0=1&W
Speed=38400
```

Microcom DeskPorte FAST

```
Init=ATX4S7=60-M1\V4\N2L1S0=1&W
Speed=57600
```

Motorola/Codex 3220 (MNP)

```
Init=AT&F&C1&D3*DC1*FL3*MF0*SM3*XC2S7=60S0=1&W
```

Motorola/Codex 3220 Plus (V.42bis)

```
Init=AT&F&C1&D3*DC1*EC0*MF0*SM3*XC2S7=60S0=1&W
Speed=38400
```

Motorola/Codex 326X Series (V.42bis)

```
Init=AT&F&C1&D3*FL3*MF0*SM3*TT2*XC2S7=60S0=1&W
Speed=38400
```

MultiTech MultiModem V32EC (V.42bis)

```
Init=AT&FX4&C1&D3$BA0&E1&E4&E15#L0S7=60S0=1&W
Speed=38400
```

MultiTech MultiModem V32 (no MNP or V.42)

```
Init=AT&F&C1&D3S7=60S0=1&W
Speed=9600
```

MultiTech MultiModem 696E (MNP)

```
Init=AT&F&C1&D3$BA0&E1&E4&E15S7=60S0=1&W
```

MultiTech MultiModem II MT932 (V.42bis)

```
Init=AT&FX4&C1&D3$BA0&E1&E4&E15#L0S7=60S0=1&W
Speed=38400
```

MultiTech MultiModem II MT1432 (V.42bis)

```
Init=AT&FX4&C1&D3#A0$BA0&E1&E4&E15#L0S7=60S0=1&W
Speed=57600
```

NEC UltraLite 14.4 Data/Fax Modem (V.42bis)

```
Init=AT&F&C1&D3&K3&Q4\J0\N7\Q2W2%C1S7=60S0=1&W
Speed=38400
```

Practical Peripherals PC28800SA (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5S7=60S36=7S46=2S48=7S95=47S0=1&W
Speed=115200
```

Practical Peripherals PM9600SA (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5S46=138S48=7S7=60S0=1&W
Speed=38400
```

Practical Peripherals PM14400FX (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5S7=60S36=7S46=2S48=7S95=47S0=1&W
Speed=57600
```

Practical Peripherals PM14400SA (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5S7=60S36=7S46=2S48=7S95=47S0=1&W
Speed=57600
```

Prometheus ProModem 9600 Plus (V.42)

```
Init=AT&F&C1&D3*E7*F3S7=60S0=1&W
```

Prometheus ProModem Ultima (V.42bis)

```
Init=AT&F&C1&D3*E9*F3*N6*S1S7=60S0=1&W  
Speed=38400
```

Racal Datacomm ALM 3223 (V.42bis)

```
Init=AT&F&C1&D3\M0\N3\P2\Q1\V1S7=60S0=1&W  
Speed=38400
```

Supra FAXModem V.32bis (V.42bis)

```
Init=AT&FN1W2&C1&D1&K3&Q5\N3%C1S7=60S36=7S48=7S95=45S0=1&W  
Speed=57600
```

Telebit T1600 (V.42bis)

```
Init=AT&FX2&C1&D3&R3S7=60S51=6S58=0S59=15S68=2S180=2S190=1S0=1&W  
Speed=38400
```

Telebit T2500 (V.42bis)

```
Init=AT~&FX2S7=60S51=5S52=2S66=1S68=2S97=1S98=3S106=1S131=1S0=1&W
```

Telebit T3000 (V.42bis)

```
Init=AT&FX2&C1&D3S51=6S59=7S68=2S7=60S0=1&W  
Speed=38400
```

Telebit QBlazer (V.42bis)

```
Init=AT&FX2&C1&D3S59=7S68=2S7=60S0=1&W  
Speed=38400
```

Texas Instruments V.32bis Internal Modem

```
Init=AT&F&C1&D3%C1\J0\N7\Q2\V2S7=60S0=1&W  
Speed=38400
```

Toshiba T24/DF Internal

```
Init=AT&F&C1&D3\J0\N3\Q2%C1S7=60S36=7S46=138S48=7S0=1&W  
Speed=9600
```

Universal Data Systems FasTalk V.32/42b (V.42bis)

```
Init=AT&F&C1&D3\J0\M0\N7\V1\Q2%C1S7=60S0=1&W  
Speed=38400
```

Universal Data Systems V.32 (no MNP or V.42)

```
Init=AT&F&C1&D2S7=60S0=1&W  
Speed=9600
```

Universal Data Systems V.3224 (MNP 4)

```
Init=AT&F&C1&D2\J0\N3\Q2S7=60S0=1&W
```

Universal Data Systems V.3225 (MNP 5)

```
Init=AT&F&C1&D2\J0\N3\Q2%C1S7=60S0=1&W
```

Universal Data Systems V.3227 (V.42bis)

```
Init=AT&F&C1&D2\J0\M0\N7\Q2%C1S7=60S0=1&W
Speed=38400
```

Universal Data Systems V.3229 (V.42bis)

```
Init=AT&F&C1&D3\J0\M0\N7\Q2%C1S7=60S0=1&W
Speed=38400
```

US Robotics Sportster 9600 (V.42bis)

```
Init=AT&FX4&A3&B1&D3&H1&I0&K1&M4S7=60S0=1&W
Speed=38400
```

US Robotics Sportster 14400 (V.42bis)

```
Init=AT&FX4&A3&B1&D3&H1&I0&K1&M4S7=60S0=1&W
Speed=57600
```

US Robotics Sportster 14400 (V.42bis) x

```
Init=AT&FX4&B1&C1&D2&H1&K1&M4E0X7Q0V1S0=1&W
Speed=57600
```

US Robotics Sportster 28800 (V.34)

```
Init=AT&FS0=1&C1&D2&H1&R2&N14&B1&W
Speed=115200
```

US Robotics Courier 28800 (V.34)

```
Init=AT&FS0=1&C1&D2&H1&R2&N14&B1&W
Speed=115200
```

US Robotics Courier V.32bis (V.42bis)

```
Init=AT&FX4&A3&C1&D2&M4&H1&K1&B1S0=1&W
Speed=38400
```

US Robotics Courier HST Dual Standard (V.42bis)

```
Init=AT&FB0X4&A3&C1&D2&M4&H1&K1&B1&R2&S1S0=1&W
Speed=115200
```

US Robotics Courier HST (V.42bis)

```
Init=AT&FB0X4&A3&C1&D2&M1&H1&K1&B1S0=1&W
Speed=115200
```

US Robotics WorldPort 2496 FAX/Data (V.42bis)

```
Init=AT&FX4&C1&D3%C1"H3\J0-J1\N3\Q2\V2S7=60S0=1&W
Speed=57600
```

US Robotics WorldPort 9696 FAX/Data (MNP 5)

```
Init=AT&FX4&C1&D3%C1\J0\N3\Q2\V2S7=60S0=1&W
```

US Robotics WorldPort 9600 (MNP 5)

```
Init=AT&FX4&C1&D3%C1\J0\N3\Q2\V2S7=60S0=1&W
```

US Robotics WorldPort 14400 (V.42bis)

```
Init=AT&FX4&A3&B1&C1&D3&H1&K1&M4S7=60S0=1&W
Speed=57600
```

Ven-Tel PCM 9600 Plus (MNP)

```
Init=AT&FB0&C1&D3\N3\Q3%B0%C1%F1S7=60S0=1&W
```

ViVa 9642e (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5\N3%C3S7=60S36=7S46=138S48=7S95=47S0=1&W  
Speed=38400
```

ViVa 14.4/FAX (V.42bis)

```
Init=AT&F&C1&D3&K3&Q5\N3%C3S7=60S36=7S46=138S48=7S95=47S0=1&W  
Speed=38400
```

ZOOM V.32 turbo (V.42bis)

```
Init=AT&FW1&C1&D3&K3&Q5\C1\N3S7=60S36=7S46=138S48=7S95=47S0=1&W  
Speed=38400
```

ZOOM V.32bis (V.42bis)

```
Init=AT&FW1&C1&D3&K3&Q9\C1\N3S7=60S36=7S95=47S0=1&W  
Speed=38400
```

Zyxel U-1496 (V.42bis)

```
Init=AT&FX6&B1&C1&D2&N0&K4&H3S7=60S0=1&W  
Speed=57600
```

