56K EXTERNAL MODEM

GUIDA RAPIDA DI INSTALLAZIONE

Gentile Cliente,

La ringraziamo per la fiducia riposta nei nostri prodotti. La preghiamo di seguire le norme d'uso e manutenzione: al termine del funzionamento di questo prodotto, La preghiamo di non smaltirlo tra i rifiuti urbani misti, ma di effettuare per detti rifiuti, una raccolta separata negli appositi raccoglitori di materiale elettrico/elettronico o di riportare il prodotto dal rivenditore che lo ritirerà gratuitamente.

www.hamletcom.com

Indice:

Informiamo che il prodotto è stato realizzato con materiali e componenti in conformità a quanto previsto dalle direttive ROHS: 2002/95/CE, 2002/96/CE 2003/108/CE; dalle Direttive RAEE: 2003/96/CE, D.Lgs. 151/2005 e dalle seguenti Direttive CE

89/336 EEC, 73/23EEC; EN 60950-1:2001 - IEC 60950-1:2001; EN 55022 :1998 +A1:2000+A2:2003 Classe B; EN 61000-3-2:2000; EN 61000-3-3:1995+A1:2001; EN 55024 : 1998+A1 :2001+A2:2003; IEC 61000-4-2:2001; IEC 61000-4-3:2002; IEC 61000-4-4:1995+A1:2000+A2:2001; IEC 61000-4-5:2001; IEC 61000-4-6:1996+A1:2000; IEC 61000-4-8:2001; IEC 61000-4-11:2001

Caratteristiche:

Piattaforma in modalità Dati
ITU-T V.90 upstream: 56000 bits/s—28000 bits/s (PCM)
ITU-T V.90 downstream: 33600 bits/s—2400 bits/s (TCM)
ITU-T V.34: 33600 bits/s—2400 bits/s (TCM)
ITU-T V.32 bis: 14400, 12000, 9600, 7200 (TCM), 9600, 4800 (QAM)
ITU-T V.32: 9600 (TCM), 9600, 4800 (QAM)
ITU-T V.22 bis: 2400 bits/s (QAM)
ITU-T V.23: 1200/75 (FSK)
ITU-T V.21: 300 (FSK)
Bell 212A: 1200 (DPSK)
Bell 103: 300 (FSK)

Piattaforma in modalità FAX
ITU-T V.17: 14400 bits/s, 12000 bits/s, 9600 bits/s, 7200 bits/s (TCM)
ITU-T V.29: 9600 bits/s, 7200 bits/s (QAM)
ITU-T V.27 ter: 4800 bits/s, 2400 bits/s (DPSK)
ITU-T V.21 channel 2: 300 (FSK)

Modalità Errore e Compressione dei dati
V.42 error correction (LAPM and MNP ®)
V.44 data compression
V.42 bis, and MNP class five data compression

Interfaccia Dati, FAX e Voce
ITU-T V.250 AT Command Set
ITU-T T.31—Class 1 FAX

Nota Bene:
PCM: Pulse code modulation
DPSK: Differential phase shift keying
QAM: Quadrature amplitude modulation
TCM: Trellis code modulation
FSK: Frequency shift keying

Requisiti di Sistema

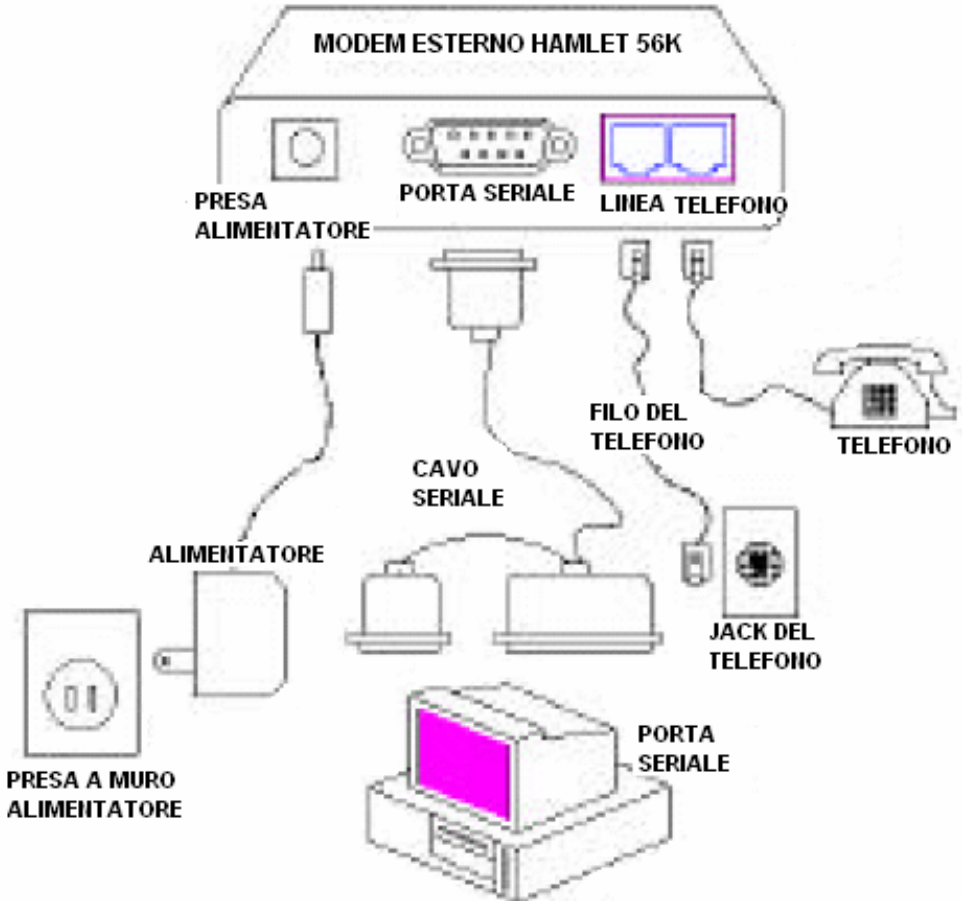
- Windows NT4.0/95/98/98SE/ME/2000/XP e Linux RedHat
- Almeno 20 MB di memoria libera su Hard Disk
- CD-ROM drive.

Installazione del Modem Hamlet

1. Spegnere il computer.
2. Collegare il modem al PC tramite il cavo RS232 in dotazione.
3. Collegare l'altra estremità del cavo telefonico RJ11 al modem e alla presa del telefono.

4.Collegare l'alimentatore al modem e ad una presa a muro.

Il seguente diagramma illustra la tipica connessione del modem :



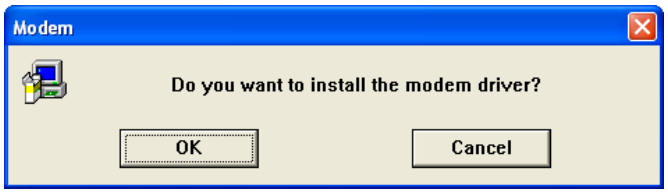
5. Accendere il computer.

Indicatori LED

LED	Colore	Significato
POWER	**Verde**	Accesa: Il modem è Acceso
DTR	**Verde**	Accesa:Terminale dati pronto
TD	**Verde**	Lampeggia: Trasferimento dati dal modem
RD	**Verde**	Lampeggia: Ricevimento dati dal modem
OH	**Verde**	Accesa:Modem collegato alla linea telefonica Spenta: Modem scollegato dalla linea telefonica

Guida rapida di Installazione per Windows 95/98/98SE/ME/2000/Vista e XP

1. Quando il sistema operativo Windows 95/98FE/98SE/2000/ME/XP/Vista parte, rileva che un nuovo hardware è stato aggiunto, e avvia una finestra **"Aggiungi il nuovo Hardware"** Cliccare su **"Cancel"**.
2. Inserire il CD in dotazione nel lettore Cd del computer.
3. Il CD dovrebbe partire automaticamente e mostrare la seguente finestra. Se non dovesse partire automaticamente, cliccare su Start – Run and type in CD:\autorun.exe (dove CD è la lettera che indica il vostro CD-ROM drive.
4. Selezionare **"Installare i Driver per il Modem".**
5. Cliccare **"OK"** per installare il modem.



6. Assicurarsi che il modem sia connesso ma non in uso and then click "**OK**" per continuare.

7. Selezionare la vostra Lingua/Nazionalità e cliccare "**OK**"

8. Cliccare "**OK**" per disinstallare il modem.

Se non si riesce ad effettuare queste procedure, effettuare l'installazione direttamente da:

CD:\Autorun.exe

Guida rapida di Installazione per Windows NT4.0

1. Avviare Windows NT4.0. Cliccare su **Start | Settings | Control Panel | Modems.**
2. In "Install New Modem box", selezionare la casella **"Don't detect my modem, I will select it from a list",** cliccare **"Next"**. Inserire il CD driver in dotazione nel lettore CD-ROM.
3. Cliccare **"Have disk"**.
4. Cliccare **"Browse"** per individuare il percorso dei driver:
   x:\Driver\NT40 (dove x sta per il vostro lettore CD-ROM) e cliccare **"OK"**.
5. Selezionare **Agere OCM Serial Modem** dalla lista e cliccare **"Next"**.
6. Evidenziare la porta di comunicazione collegata al modem e cliccare **"Next"**.
7. Cliccare **"Finish"** per completare l'installazione.
8. Quando appare la finestra **Modem Properties** , cliccare **"Close"**.

Guida rapida di Installazione per Linux Red Hat

1. Avviare Linux RedHat.
2. Cliccare **System Menu | System | Control Panel | Modem Configuration**.
3. Al percorso/**dev**, inserire la linea di comando singola:
   setserial **tty-number** uart 16550A irq **IRQ-number** port **I/O-address**.
   Esempio: **setserial ttyS2 uart 16550A irq 5 port 0xe400**
4. Al percorso/**dev**, rimuovere il link di default al modem e collegare il modem al tty che assegnerete nell'ultimo step.
   Esempio: **rm modem**
   ln –s ttyS2 modem
5. Selezionare un parametro da ttyS0 a ttyS3 a seconda di come la porta COM port è stata inserita.
   ttyS0 – COM1 ttyS1 – COM2
   ttyS2 – COM3 ttyS3 – COM4

56K EXTERNAL MODEM

QUICK INSTALLATION GUIDE

Dear Customer,
thanks for choosing Hamlet. Please carefully follow the instructions for its use and maintenance and, once this item has run its life span, we kindly ask You to: dispose of it in an environmentally friendly way, by putting it in the separate bins for electrical/electronic waste, or to bring it back to your retailer who will collect it for free.

www.hamletcom.com

Index Guide

Features

Data Mode Capabilities
ITU-T V.90 upstream: 56000 bits/s—28000 bits/s (PCM)
ITU-T V.90 downstream: 33600 bits/s—2400 bits/s (TCM)
ITU-T V.34: 33600 bits/s—2400 bits/s (TCM)
ITU-T V.32 bis: 14400, 12000, 9600, 7200 (TCM), 9600, 4800 (QAM)
ITU-T V.32: 9600 (TCM), 9600, 4800 (QAM)
ITU-T V.22 bis: 2400 bits/s (QAM)
ITU-T V.23: 1200/75 (FSK)
ITU-T V.21: 300 (FSK)
Bell 212A: 1200 (DPSK)
Bell 103: 300 (FSK)

FAX Mode Capabilities
ITU-T V.17: 14400 bits/s, 12000 bits/s, 9600 bits/s, 7200 bits/s (TCM)
ITU-T V.29: 9600 bits/s, 7200 bits/s (QAM)
ITU-T V.27 ter: 4800 bits/s, 2400 bits/s (DPSK)
ITU-T V.21 channel 2: 300 (FSK)

Error Mode and Data Compression
V.42 error correction (LAPM and MNP ®)
V.44 data compression
V.42 bis, and MNP class five data compression

Data, FAX, and Voice Interface
ITU-T V.250 AT Command Set
ITU-T T.31—Class 1 FAX

Note:
PCM: Pulse code modulation
DPSK: Differential phase shift keying
QAM: Quadrature amplitude modulation
TCM: Trellis code modulation
FSK: Frequency shift keying

System Requirements

- Windows NT4.0/95/98/98SE/ME/2000/XP and Linux RedHat Operating System.
- 20 MB Hard Disk free space or above
- CD-ROM drive.

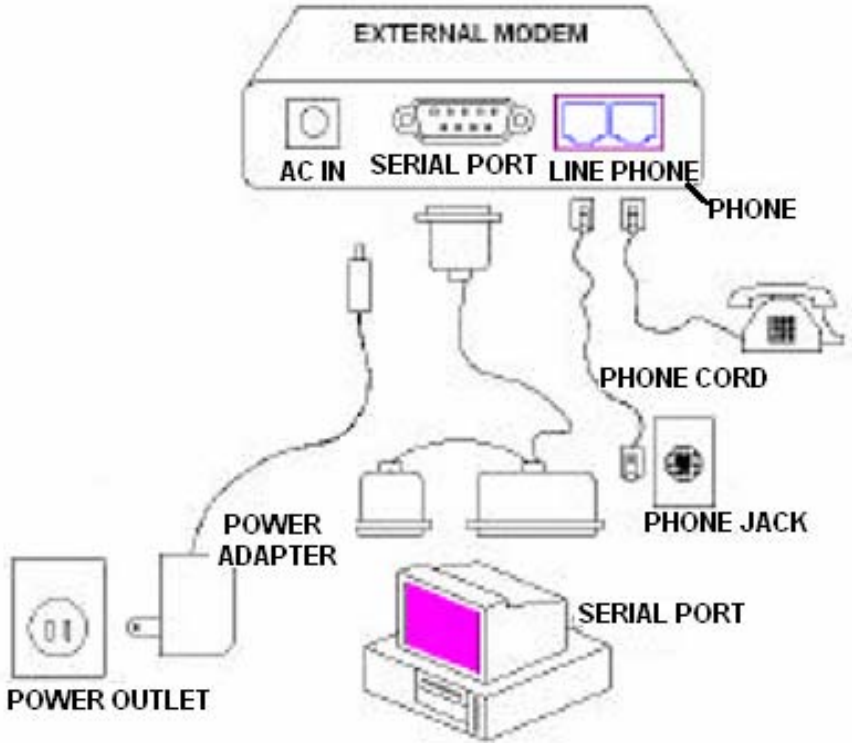
Modem Installation

1. Please turn off your computer.
2. Please connect RS232 modem and PC with Rs232 cable.

3. Please connect the other end of the phone cord to a telephone phone point, via the supplied adaptor (RJ11) if required.

4.Plug the AC adapter into the modem's AC IN jack, and plug the other end into an electrical outlet.

The diagram below illustrates the typical external modem connection:



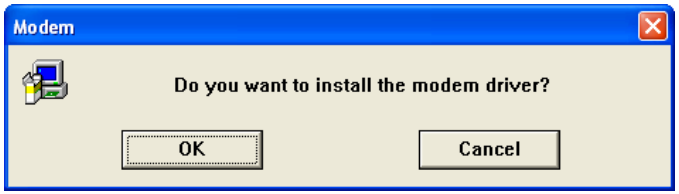
5. Please turn on your computer.

LED Indicators

LED	Color	Meaning
POWER	**Green**	ON: Power on
DTR	**Green**	ON:Data terminal ready
TD	**Green**	Flash: Transferring data from the modem
RD	**Green**	Flash: Receiving data from the modem
OH	**Green**	ON: Modem off hook OFF: Modem on hook

Installation Guide for Windows Series 95/98/98SE/ME/2000/Vista and XP

1. As Windows 95/98FE/98SE/2000/ME/XP/Vista starts it will detect that new hardware has been added, and start the **"Add New Hardware Wizard"** Click on **Cancel**.
2. Please insert the analog Modem communication CD into your CD-ROM drive.
3. The CD should auto-start, displaying the following window. If it does not start, click on Start – Run and type in CD:\autorun.exe (where CD is the drive letter of your CD-ROM drive.
4. Please select **"Install Modem Driver".**
5. Please click **"OK"** to install the modem.



6.Please make sure that the modem is connected and not in use and then click "**OK**" to continue.

7. Please click "**OK**" to Country/Region Select

8. Please click "**OK**" to uninstall complete.

If you can not perform these procedures smoothly as above, please perform the file directly:
CD:\Autorun.exe

Installation Guide for Windows NT4.0

1. Start Windows NT4.0. Click **Start | Settings | Control Panel | Modems.**
2. In Install New Modem box, with **Don't detect my modem, I will select it from a list** checkbox selected, click **Next**. Insert the Installation CD into your CD-ROM drive.
3. Click **Have disk**.
4. Click **Browse** to locate the path of the driver:
   x:\Driver\NT40 (where x is your CD-ROM drive) and click **OK**.
5. Select the **Agere OCM Serial Modem** from the list and then click **Next**.
6. Highlight the communication port connected to your modem and then click **Next**.
7. Click **Finish** to complete installation.
8. When **Modem Properties** window appears, click **Close**.

Installation Guide in Linux Red Hat

1. Start Linux RedHat.
2. Click **System Menu | System | Control Panel | Modem Configuration**.
3. At the path /**dev**, enter the single command line:
   setserial **tty-number** uart 16550A irq **IRQ-number** port **I/O-address**.
   Example: **setserial ttyS2 uart 16550A irq 5 port 0xe400**
4. At the path /**dev**, remove the default modem link, and then
   link the modem to the tty you assign in last step.
   For example: **rm modem**
   ln –s ttyS2 modem
5. Select one from ttyS0 to ttyS3 depending on what COM port you plug in.
   ttyS0 – COM1 ttyS1 – COM2
   ttyS2 – COM3 ttyS3 – COM4

Basic Command Set

A—Answer

Use this command to instruct the modem to connect to the line and establish a connections with the remote modem or DCE. This command can be canceled if the modem receives a new command or character from the host system before handshaking has begun.

Result codes:

► CONNECT if a connection is established and the extended result code parameter (see X<value>—Select Result Code and Monitor Call Progress on page 19) is equal to 0.

► CONNECT <rate> if a connection is established and the extended result code parameter is not equal to 0.
► NO CARRIER if a connection cannot be established or the modem aborts the connection on request of the host system.
► OK if the command is aborted or DTR is turned off by the host system when the data terminal ready control (see &D<value>—Data Terminal Ready (DTR) Control on page 22) is not set to 0.
► ERROR if the modem is in on-line command mode when receiving the A command.

B<value>—Communication Standard Setting

Use this command to select the communication standard used by the modem.
Result codes:
► OK if <value> = 0—3, 15, 16.
► ERROR if <value> ≠0—3, 15, 16.

Table 2. B<value> Commands

Command	Function
B0	Selects CCITT V.22 mode when the modem is at 1200 bits/s.
B1	Selects Bell 212A when the modem is at 1200 bits/s (default).
B2	Deselects V.23 reverse channel (same as **B3**).
B3	Deselects V.23 reverse channel (same as **B2**).
B15	Selects V.21 when the modem is at 300 bits/s.
B16	Selects Bell 103J when the modem is at 300 bits/s (default).

D<dial_string>—Dial

Use this command to instruct the modem to begin the dialing sequence. The dial string which is made up of the telephone number and dial modifiers is entered after the **D** command.
A dial string can be up to sixty characters long. Any digit or symbol may be dialed as touchtone digits. Characters such as spaces, hyphens, and parentheses are ignored by the modem and may be included in the dial string to enhance readability.
Result codes:
► CONNECT if a connection is established and the extended result code parameter (see X<value>—Select Result
Code and Monitor Call Progress on page 19) is equal to 0.
► CONNECT <rate> if a connection is established and the extended result code parameter is not equal to 0.

D<dial_string>—Dial (continued)

► NO CARRIER if a connection can not be established or the modem aborts the connection on request of the host system.
► BUSY if the W or @ modifiers are used and a busy signal is detected.
► NO ANSWER if the @ modifier is used and the remote ring followed by 5 seconds of silence is not detected before expiration of the connection timer (see S7—Connection Completion Time-Out on page 89).
► NO DIALTONE if tone detection is enabled or the W modifier is used and no dial tone is detected.
► OK if the command is aborted or DTR is turned off by the host system when the data terminal ready control (see &D<value>—Data Terminal Ready (DTR) Control on page 22) is not set to 0.
► ERROR if the modem is in on-line command mode when receiving the dial command.

Table 4. Dial Modifiers

Modifier	Function Name	Description
L	Dial the last number	Instructs the modem to dial the last number dialed. This modifier is valid only if it is the first symbol of the dial string. All consecutive characters are discarded.
P	Select pulse dialing	—
T	Select tone dialing (default)	—
W	Wait for dial tone	Instructs the modem to wait for a second dial tone before processing the dial string.
,	Dial pause	Instructs the modem to pause before processing the next character in the dial string. Register S8 (see S8—Pause Time for Comma Dial Modifier on page 89) determines the length of the pause.
!	Hook flash	Instructs the modem to go on-hook for 0.5 seconds and then return to off-hook.
@	Wait for quiet answer	Instructs the modem to wait for five seconds of silence after dialing the number. If silence is not detected, the modem sends a *NO ANSWER* result code back to the user.
;	Return to command mode	Instructs the modem to return to command mode after it has finished dialing without disconnecting the call. This modifier must be the last character in the dial string.
$	Bong tone detection	—
S=<location>	Dial from register	Instructs the modem to dial a telephone number previously stored using the **&Z<location>=<dial_string>** command. Valid storage locations are 0—2.
^	Disable data calling tone transmission	—
V	Dial using speakerphone	Instructs the modem to switch to speakerphone mode and dial the number. Use the **ATH** command to disconnect the voice call.

E<value>—Echo Command

Use this command to enable or disable the modems echo feature. When the echo feature is selected and the modem is in command mode, characters sent to the modem are sent back to the host and

displayed on the monitor.

Result codes:

► OK if <value> = 0—1.

► ERROR if <value> ≠0—1.

Table 5. E<value> Commands

Command	Function
E0	Disables echo command.
E1	Enables echo command (default).

H<value>—Hook Control

Instructs the modem to go on-hook to disconnect a call or go off-hook to make the telephone line busy.

Result codes:

► OK if <value> = 0—1.

► ERROR if <value> ≠0—1.

Table 7. H<value>* Commands

Command	Function
H0	The modem goes on-hook (default).
H1	The modem goes off-hook.

L<value>—Speaker Volume

Use this command to set the speaker volume setting when the speaker is on.

Result codes:

► OK if <value> = 0—3.

► ERROR if <value> ≠0—3.

Table 10. L<value> Commands

Command	Function
L0	Low volume.
L1	Low volume.
L2	Medium volume (default).
L3	High volume.

M<value>—Speaker Control

Use this command to turn the speaker on and off.

Result codes:

► OK if <value> = 0—3.

► ERROR if <value> ≠0—3.

Table 11. M<value> Commands

Command	Function
M0	Speaker is off.
M1	Speaker is on until the modem detects the carrier signal (default).
M2	Speaker is always on when the modem is off-hook.
M3	Speaker is on until the carrier is detected, except when dialing.

O<value>—Return to On-Line Data Mode

Use this command to exit on-line command mode and reenter on-line data mode. If the modem is not in on-line command mode when this command is received the modem generates an ERROR result code.

Result codes:

► CONNECT if <value> = 0, 1, 3 and the result code and call progress monitor is set to 0 (**X0**).

► CONNECT <rate> if <value> = 0, 1, 3 and the result code and call progress monitor is not set to 0 (**X<value>**

where n = 1—7).

► NO CARRIER if the connection is not successfully resumed.

► ERROR if <value> ≠0—1, 3.

Table 13. O<value> Commands

Command	Function
O0	**Instructs the modem to exit on-line command mode and return to data mode (default)*.**
O1	**Issues a retrain before returning to on-line data mode.**
O2	**Issues a rate renegotiation before returning to on-line data mode.**

P—Select Pulse Dialing

Use this command to configure the modem for pulse dialing. All subsequent **D<dial_string>** commands use pulse dialing until either the **T** command or a tone dial modifier is received by the modem. Tone dialing is the default setting.

This command does not use parameters and generates an ERROR result code when parameters are attached to the command.

T—Select Tone Dialing

Use this command to configure the modem for DTMF tone dialing. All subsequent **D<dial string>** commands use tone dialing until either the **P** command or a pulse dial modifier is received by the modem. Tone dialing is the default setting. This command does not use parameters and generates an ERROR result code when parameters
are attached to the command.

V<value>—DCE Response Format

Controller-based modems generate result codes using one of two formats. Verbose mode generates result codes in the familiar text formats using words. Numerical mode generates result codes as a number. Each result codes has a number assigned to it (see Result Codes on page 97). Use this command to switch between numerical and verbose modes. Call progress and negotiation progress messages are affected by this command.

Result codes:

► OK if <value> = 0—1.

► ERROR if <value> ≠0—1.

Table 16. V<value> Commands

Command	Function
V0	Displays result codes as digits.
V1	Displays result codes as text (default).

V<value>—DCE Response Format (continued)

Table 17. V<value> Result Code Formats

Command	Result Code Format
V0	*<numeric code><CR>*
V1	*<CR><LF><verbose code><CR><LF>*

W<value>—Result Code Option

Use this command to select the modems CONNECT message options.

Result codes:

► OK if <value> = 0—2.

► ERROR if <value> ≠0—2.

Table 18. W<value> Commands

Command	Function
W0	**CONNECT result code reports DTE receive speed. Disables protocol result codes.**
W1	**CONNECT result code reports DTE receive speed. Enables protocol result codes**
W2	**CONNECT result code reports DTE receive speed. Disables protocol result codes (default).**

X<value>—Select Result Code and Monitor Call Progress

Use this command to enable tone detection options used in the dialing process. As each function is chosen, the modem's result codes are also affected. Therefore, this command is frequently used to control the modem's responses. The primary function of this command is to control call response capabilities.

Result codes:

► OK if <value> = 0—7.

► ERROR if <value> ≠0—7.

Table 19. X<value> Commands

Command	Extended Result Codes	Dial Tone Detect	Busy Tone Detect
X0	Disabled	Disabled	Disabled
X1	Enabled	Disabled	Disabled
X2	Enabled	Enabled	Disabled
X3	Enabled	Disabled	Enabled
X4 (default)	Enabled	Enabled	Enabled
X5, X6	Enabled	Enabled	Enabled
X7	Disabled	Enabled	Enabled

X<value>—Select Result Code and Monitor Call Progress (continued)

Table 20. X<value> Option Description

Function	Enabled	Disabled
Ext Result Codes	Modem displays basic result codes, connect messages with data rate, and an indication of the modems error correction and data compression operations.	Modem displays the basic result codes.
Dial Tone Detect	Modem dials upon detection of a dial tone, and disconnects the call if the dial tone is not detected within 10 seconds.	Modem dials a call regardless of whether it detects a dial tone. Register S6 (see S6—Wait Time Before Dialing on page 89) contains the dial delay.
Busy Tone Detect	Modem monitors for busy tones.	Modem ignores any busy tones it receives.

Table 21. X<value> Option Result Codes

Command	Result Codes		
X0	■ *OK* ■ *CONNECT*	■ *RING* ■ *NO CARRIER*	■ *ERROR*
X1	■ *OK* ■ *CONNECT <RATE>*	■ *RING* ■ *NO CARRIER*	■ *ERROR*
X2	■ *OK* ■ *CONNECT <RATE>*	■ *RING* ■ *NO CARRIER*	■ *ERROR* ■ *NO DIALTONE*
X3	■ *OK* ■ *CONNECT <RATE>* ■ *BLACKLISTED*	■ *RING* ■ *NO CARRIER*	■ *ERROR* ■ *BUSY*
X4	■ *OK* ■ *CONNECT <RATE>* ■ *BLACKLISTED* ■ *CALL WAITING DETECTED*	■ *RING* ■ *NO CARRIER* ■ *DELAYED*	■ *ERROR* ■ *BUSY* ■ *NO DIALTONE*
X5, X6	■ *OK* ■ *CONNECT <RATE>* ■ *BLACKLISTED* ■ *CALL WAITING DETECTED*	■ *RING* ■ *NO CARRIER* ■ *DELAYED*	■ *ERROR* ■ *BUSY* ■ *NO DIALTONE*
X7	■ *OK* ■ *CONNECT*	■ *RING* ■ *NO CARRIER*	■ *ERROR*

Z<value>—Reset and Recall Stored Profile

Use this command to make the modem go on-hook and restore the profile saved by the last **&W** command.

Note: Both **Z0** or **Z1** restore the same profile (see &W<value>—Store Current Configuration on page 28). Agere

Systems controller-based modems only have one stored profile.

Result codes:

► OK if <value> = 0—1.

► ERROR if <value> ≠0—1.

Table 23. Z<value> Commands

Command	Function
Z0	Reset and restore stored profile.
Z1	Reset and restore stored profile.

&F<value>—Restore Factory Default Configuration

Use this command to reset the modem to the configuration programmed at the factory. This operation replaces all of the command options* and S-register settings in the active configuration with factory default values.

Note: In voice mode, the command line is ignored if the **AT&F** command is placed on the same line as the other commands. To load factory settings in voice mode, issue the **&F<value>** command by itself.

Result codes:

- OK if <value> = 0.
- ERROR if <value> ≠0.

Table 27. &F<value> Commands

Command	Function
&F0	Loads the configuration stored and programmed at the factory (default).

&K<value>—Local Flow Control Selection

Use this command to select a flow control method.

Result codes:

► OK if <value> = 0, 3, or 4.

► ERROR if <value> ≠0, 3, or 4.

Table 30. &K<value> Commands

Command	Function
&K0	Disables flow control.
&K3	Enables RTS/CTS (hardware) flow control (default).
&K4	Enables XON/XOFF software flow control.

&M<value>—Asynchronous Communications Mode

This command is supported to ensure backward compatibility with communication software that issues the **&M0** command. The preferred method for changing the asynchronous communication mode is to use the **\N<error control mode>** command.

Result codes:

► OK if <value> = 0.

► ERROR if <value> ≠0.

Table 31. &M<value> Commands

Command	Function
&M0	Asynchronous mode (default).

&P<value>—Pulse Dial Make-to-Break Ratio Selection

Use this command to select the make-to-break ratio. This command is effective only for Japan.

Result codes:

► OK if <value> = 0—2.

► ERROR if <value>n ≠0—2.

Table 32. &P<value> Commands for Domestic Versions

Command	Function
&P0	Selects 39%—61% make/break ratio at 10 pulses per second.
&P1	Selects 33%—67% make/break ratio at 10 pulses per second (default).
&P2	Selects 33%—67% make/break ratio at 20 pulses per second.

&S<value>—Data Set Ready (DSR) Option

Use this command to controls DSR action.

Result codes:

► OK if <value> = 0—1.

► ERROR if <value> ≠0—1.

Table 34. &S<value> Commands

Command	Function
&S0	**DSR is always on (default).**
&S1	**DSR comes on after establishing a connection and goes off when the connection ends.**

&T<value>—Self-Test Commands

Use this command to perform diagnostic tests on the modem. Each test is designed to isolate a problem location when experiencing periodic data loss or random errors.

Result codes:

► OK if <value> = 0.

► CONNECT if <value> = 1 or 3.

► ERROR if <value> ≠0—1 or 3.

Table 35. &T<value> Commands

Command	Function
&T0	Abort. Terminates the test in progress.
&T1	Local analog loop. This test verifies modem operation as well as the connection between the modem and the computer. Any data entered at the local DTE is modulated, demodulated and then returned to the local DTE. To work properly, the modem must be off-line.
&T3	Local digital loopback test.