

V.3229/V.3229L
Manual

Compliments of
ARC ELECTRONICS
800-926-0226 / 281-392-6333

<http://www.arcelect.com/>
arc@arcelect.com

Chapter 6 Status Registers

S-REGISTERS

Most modern configuration information is stored in a part of memory called status (S) registers. During operation this information is used to determine modem functions.

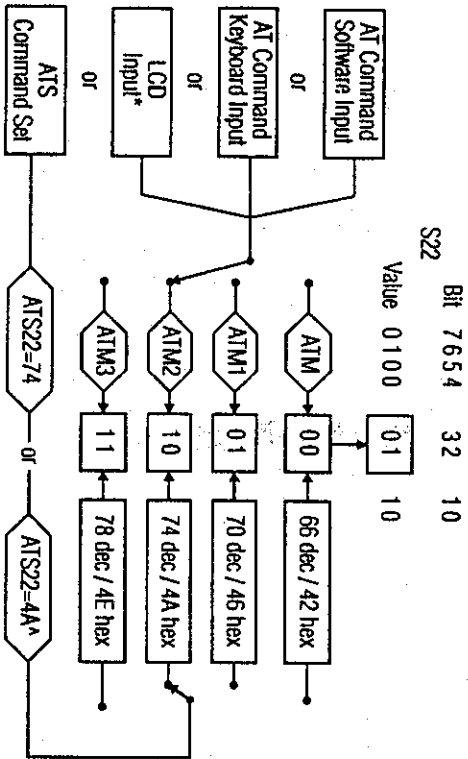
The information stored in the S-registers is changed by the AT or V.25b command sets and by pushbuttons in response to the LCD prompt. These are the preferred methods. Some software programs also access the S-registers via the AT command set, but this action is transparent to the user. The AT commands indicate which memory bit(s) to alter to select a particular option or to perform a certain function. The S-register values comprise the configuration profile.

Caution: The purpose of this tutorial is to show the versatility of option selection and register function. It is strongly recommended that the preferred methods of option selection be used. This tutorial uses S22 as the example register. Certain modems may use S22 differently or may not have an S22.

Generally the user should not directly alter S-register values. However, the user has the option of changing S-registers via AT commands and directly altering the register value. This is called "writing" to the S-register. Writing to an S-register is not a preferred method and should only be used by programmers who need to manipulate S-registers so they can interact with a software program under development or some other similar action.

Certain S-registers cannot be altered by the ATS command series. These are called "read only" S-registers. Appendix D contains a listing of S-registers and indicates if they are read only or read and write.

Figure 6-1 illustrates how the different inputs to an S-register (S22 in this case) are used to select a particular option. Bits 3 and 2 of S22 control speaker options. Some communication software packages may use the AT command set. For example purposes bit values are arbitrary.



ATM Speaker off
 ATM1 Speaker on until carrier detect
 ATM2 Speaker always on
 ATM3 Speaker off while unit is dialing

Figure 6-1
Changing S-Register Values

Bit values for S-registers must not be confused with the total register value. Bit values are counted separately for each option group, called bit mapping, while the register value is the cumulative decimal or hexadecimal total. The decimal value counts all eight bits as a single group. Hexadecimal values split the bits into two groups of four each. Writing to an S-register changes the total value. Figure 6-2 illustrates the difference between decimal calculation and hexadecimal calculation.

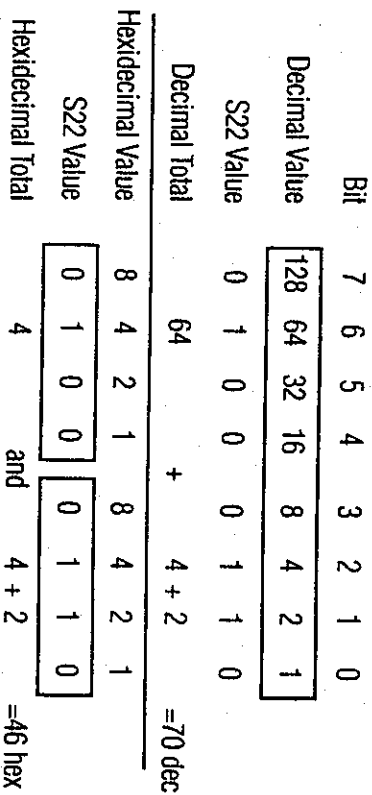


Figure 6-2
Calculating S-Register Value

Note: Refer to Appendix F for decimal/hexadecimal values.

S-REGISTER OPERATION

Enter $ATS_n?$ to read a register value, where n =register number for a decimal value; or $ATS_n?v$ for a hexadecimal value.

For example, to determine the current backspace character enter

$ATS5?$

The screen will show the ASCII value of the backspace character stored in register S5.

Changing Register Values

$Sn=v$
 $Sn=\backslash v$

To change an option using ATS commands requires the operator to precalculate the revised decimal (or hexadecimal) total. Because of the chance of miscalculating the bit sum, causing unplanned option changes, writing to an S-register is discouraged. For operators who prefer this method of option selection a much simplified command that eliminates the decimal calculation is explained in the Individual Bit Command section.

Enter $ATS_n=v$ to change a register value, where n =register number and v =decimal value; or $ATS_n=\backslash v$, where $\backslash v$ =hexadecimal value.

Note: Not all registers can be set by the $ATS_n=v$ (or $\backslash v$) command. Some registers are for reference only.

To change the escape character from + to the ESC key (ASCII value of 27)

Enter $ATS2=27$

To return the modem to the command mode press the ESC key three times:

(pause) ESC ESC ESC (pause)

Individual Bit Command

$Sn . \# = v$

Most operators use AT commands as the primary method of changing S-register options. However, some options stored in registers do not have an associated AT command. For these options, the individual bit AT command can be used to change the setting of the bit controlling the option.

To Change a single bit value within a register

Enter $ATS_n . \# = v$

where n = register number $\#$ = bit position 0 through 7 v = bit value 1 or 0

Example:

S-register 27, bit 2 selects between dial-up or leased line operation.

AT command method:

$AT\&L$ selects dial-up operation (sets S27 bit 2 to 0)

$AT\&L1$ selects leased line operation (sets S27 bit 2 to 1)

Individual bit method:

$ATS27.2=0$ selects dial-up operation (sets S27 bit 2 to 0)

$ATS27.2=1$ selects leased line operation (sets S27 bit 2 to 1)

Note: This way of selecting options can be used on all S-registers except read only registers.

Autoanswer
S0=0-255
This register turns the option on or off. Set the register to 0 to turn autoanswer off.

Set the register to any value other than zero (1-255) to turn autoanswer on. The number selected is the ring count the modem answers on. For example, if S0 equals 4, the modem answers the call on the fourth ring. The default value is 1.

Ring Count
S1=0-255
This register contains the ring count for a current incoming call and should not be changed. The user can read the register to determine the ring total.

Escape Character
S2=0-255
The standard escape character is a + sign (ASCII value of 43). To change the character, set S2 to the desired ASCII value.

To disable the escape command, set S2 to any value greater than 127.

End-of-Line Character
S3=0-127
The standard end of line character is the carriage return (ASCII value of 13). This character ends each command as it is sent to the modem. It is also sent by the modem after each status message or number code.

To change the character, set S3 to the desired ASCII value (0-127).

Line Feed Character
S4=0-127
The standard character is the line feed (ASCII value of 10). This character is sent by the modem after each status message. To change it, set S4 as desired (0-127).

Backspace Character
S5=0-127
The standard character is the backspace (ASCII value of 8). To change it, set S5 to the desired value (0-127).

Pause Before Dialing
S6=0-255
When dial tone detection is disabled (command X, X1, or X3 in effect), the modem waits the number of seconds (0-255) stored in this register before dialing. The default value is 2 (seconds).

Pause for Ringback and Carrier Detection / Wait for 2nd Dial Tone
S7=1-255
If no ringback is detected in the number of seconds in S7 (1-255), the modem disconnects and sends the NO CARRIER message or code. If ringback is detected, the modem begins to look for a carrier.

If no carrier is detected within the number of seconds in S7, the modem hangs up and sends the NO CARRIER message or code.
Values between 1 and 255 may be used. The default value is 30 (seconds).

Pause Interval for Comma
S8=0-255
When a dial command contains a comma, the modem pauses the number of seconds in S8.

Change S8 to change the basic pause interval (0-255), or use several commas in a row for greater delay during dialing.

The default value is 2 (seconds).

Carrier Detect Time
S9=0-255
S9 contains the amount of time (0-255) in 0.1 second increments the carrier must be present to be recognized. The default value is 6 (0.6 second). This timer can be extended to lessen the likelihood of false detection of carrier.

Lost Carrier Detect Time
S10=0-255
S10 contains the amount of time (0-255) in 0.1 second increments carrier must be absent to be recognized as a loss of carrier. The default value is 14 (1.4 seconds).

DTMF Tone Duration
S11
S11 determines the length of DTMF tones. The period of silence is equal to the duration of the tone. The value of this register must be entered in multiples of 10. Default value is 80 (80 ms).

Escape Sequence Pause S12=0-255

Using the escape sequence to return to command mode from data mode requires two pauses, one before and one after the escape characters.

The pauses prevent the modem from responding to a character sequence which might contain the escape sequence as part of its normal data transmission.

S12 contains the pause interval in 0.02 second increments. The factory setting is 50, equivalent to 1 second (50 x 0.02 sec). When S12 is 0 then timing is not a factor.

The timing between the 3 escape characters must be less than the pause interval or the escape sequence will not be detected. The data rate also affects the timing and must be taken into account when changing the pause interval.

To disable the escape command, set S2 to a value greater than 127 instead of changing S12. Values between 0 and 255 may be used for S12.

Note: When S registers have parallel AT commands, the commands are listed in the register tables as a cross reference. If no command exists for the option the column is left blank.

S13

Not used

Bit Mapped S14

Bit	Value	Command	Description
0	--	--	Reserved
1	0 *1	E E1	Local character echo off Local character echo on
2	*0 1	Q Q1	Response messages on Response messages off
3	0 *1	V V1	Response messages as digit codes Response messages as words
4	*0 1	Q2	Ignore Response messages in originate mode only
5	*0 1	T P	Tone dial Pulse dial
6	--	--	Reserved
7	0 *1	*OR1 *OR	Forced answer Normal originate

* default

Note: Registers that contain more than one option are called "bit mapped" registers.

S15

Reserved

System Tests

This register contains the status of system test operations. For reference only.

Bit	Value	Command	Description
0	0		Analog loopback inactive
0	1		Analog loopback in progress
1	---	---	Reserved
2	0		Digital loopback inactive
2	1		Digital loopback in progress
3	0		Slaved digital loopback inactive
3	1		Slaved digital loopback in progress
4	0		Remote digital loopback inactive
4	1		Remote digital loopback in progress
5	0		Self test remote digital loopback inactive
5	1		Self test remote digital loopback in progress
6	0		Self test analog loopback inactive
6	1		Self test analog loopback in progress
7	---	---	Reserved

S17 Not used

Test Timeout

The amount of time, in 1 second increments, that a diagnostic test will run is determined by the value assigned to S18 (0-255). A value of 0 disables the timer allowing a test to run indefinitely. The default value is 0.

S19, 20 Not used

Bit Mapped

S21

Bit	Value	Command	Description
6, 0	*00	&S	DSR always on
	10	&S1	DSR on when off hook in data mode
	01	&S2	DSR off 5 seconds after disconnect
	11	&S3	DSR follows off hook (OH)
5, 1	*00	&C	DCD always on
	10	&C1	DCD on while carrier present
	01	&C2	DCD on except for 5 seconds after disconnect
	11	&C3	DCD follows RTS on remote modem; not valid in reliable or buffered mode
2	0	&R	CTS follows RTS by S26 delay
	*1	&R1	CTS always on
4, 3	*00	&D	DTR ignored
	01	&D1	DTR on-to-off transition recalls asynchronous command state
	10	&D2	DTR on-to-off transition causes disconnect
	11	&D3	DTE on-to-off transition resets modem to current stored configuration and enters command mode
7	0	Y	Long space disconnect disabled
	*1	Y1	Long space disconnect enabled

* default

Bit Mapped
S22

Bit	Value	Command	Description
1, 0	00	L	Speaker volume low
	01	L1	Speaker volume low
	*10	L2	Speaker volume medium
	11	L3	Speaker volume high
3, 2	00	M	Speaker off
	*01	M1	Speaker on until carrier detect
	10	M2	Speaker always on
	11	M3	Speaker off when modern is dialing
6-4	000	X	CONNECT message only, blind dial, no busy detect
	001	X1	CONNECT / appropriate code for rate, blind dial, no busy detect
	010	X2	CONNECT / appropriate code for rate, waits for dial tone, no busy detect
	011	X3	CONNECT / appropriate code for rate, blind dial, reports BUSY
	*100	X4	CONNECT / appropriate code for rate, waits for dial tone, reports BUSY
7	*0 1	&P &P1	Make / break ratio (US) 39/61 Make / break ratio (UK) 33/67

* default

Bit Mapped
S23

Bit	Value	Command	Description
0	0 *1	&T5 &T4	Remote digital loop request denied Remote digital loop request granted
5-1	---	---	Reserved
7, 6	*00 01 10	&G &G1 &G2	No guard tones 550 Hz guard tone 1800 Hz guard tone

* default

S24

Not used

DTR State Recognition
S25

The S25 register specifies the amount of time (0-255) in 0.01 second (10 ms) increments that DTR must stay high or low in order to be recognized as such. The default value is 5 (0.05 second).

RTS/CTS Delay
S26

The S26 register specifies the amount of time (0-255) in 0.01 second (10 ms) increments between the RTS signal and the CTS signal. The default value is 0.

Bit Mapped
S27

Bit	Value	Command	Description
1, 0	*00	&M	Async
	01	&M1	Sync data / async dial
	10	&M2	Sync data / dial through DTR
	11	&M3	Sync data / manual dial
2	*0 1	&L &L1 and &L2	Dial-up line Leased line
3	-	-	Reserved
5, 4	*00	&X	Internal clock
	01	&X1	External clock
	10	&X2	Receiver clock
6	0 *1		Enable async DTR dialer Disable async DTR dialer
7	-	-	Reserved

* default

Lookback Timer
S28

The S28 register specifies the amount of time in 1.0 minute increments that the modem will remain in dial backup mode before retrying leased line mode. This is only used if automatic dial backup is enabled. A zero will disable automatic lookback to leased line. The default value is 15 minutes.

Bit	Value	Command	Description
7-0	0-255		Time in 1 minute increments (0=disabled)

* default

Bit Mapped
S29

Bit	Value	Command	Description
0	*0	*NT1 *NT	Enable AT command set Disable AT command set
1	*0 1	*RO *RO1	Options restored at disconnect Options restored at disconnect
2	*0 1	*FT *FT1	Disable V.32 fast train Enable V.32 fast train
6-3	--	--	Reserved
7	*0 1	*FB *FB1	DTE fallback disabled DTE fallback enabled

* default

Bit Mapped
S30

Bit	Value	Command	Description
0	--	--	Reserved
1	*0 1		V.25 ASCII V.25 EBCDIC
4-2	--	--	Reserved
5	*0 1		NRZ NRZI
7, 6	00 01 10 *11	8M4 8M5	V.25 disabled V.25 bisync enabled V.25 SDLC enabled Async enabled

* default

4-Wire Leased
Line Training
Sequence
S31

Bit	Value	Command	Description
0	*0 1	--	V.33 training sequence V.32 training sequence
7-1	--	--	Reserved

* default

Bit Mapped
S32

Bit	Value	Command	Description
0	0 1	&L1 &L2	2-wire (leased line only) 4-wire (leased line only)
1	0 *1	*LC1 *LC2	Line current disconnect = short Line current disconnect = long
2	0 *1	*LC *LC1 or *LC2	Line current disconnect = disable Line current disconnect = enable
3	*0 1	*DB *DB1	Dial backup = manual Dial backup = automatic
7-4	--	--	Reserved

* default

S33

Reserved

Bit Mapped
S34

Bit	Value	Command	Description
0	*0 1	*AN *AN1	Bilateral analog = disable Bilateral analog = enable
1	*0 1	*DG *DG1	Bilateral digital = disable Bilateral digital = enable
2	*0 1	*LA *LA1	DTE commanded LAL = disable DTE commanded LAL = enable
3	*0 1	*RD *RD1	DTE commanded RDLE = disable DTE commanded RDLE = enable
7-4	--	--	Reserved

*default

S35-38 Reserved

Connect Message
S39

Bit	Value	Command	Description
4-0	--	--	Reserved
5	*0 1	--	Send connect message DTE rate Send connect message DCE rate
7-6	--	--	Reserved

*default

S40-50 Reserved

Bit Mapped
S51

The S51 register selects dial line transmit level from -9 to -21 dBm in 1dB increments.

Bit	Value	Command	Description
4-0	9 to 21	*TDn	Transmit level in dBm (-9 through -21 dBm)
7-5	--	--	Reserved

*default

Bit Mapped
S52

The S52 register selects leased line transmit level from 0 to -21 dBm in 1 dB increments.

Bit	Value	Command	Description
3-0	*0 to 21	*TLn	Transmit level in dBm (0 through -21 dBm)
7-4	--	--	Reserved

*default

801 V.32 Timeout The S53 register selects 801 (ACU) V.32 timeout.
S53

Bit	Value	Command	Description
0	*0 1	--	801 V.32 timeout long 801 V.32 timeout short
1	--	--	Reserved
3, 2	*00 01 10 11	%R %R1 %R2 %R3	Auto rate renegotiation threshold disabled Low BER Medium BER High BER
7-4	--	--	Reserved

*default

Flow Control
S54

The S54 register selects the flow control options.

Bit	Value	Command	Description
1, 0	00	0Q	Disable DTE flow control
	*01	0Q1	Enable DTE XON/XOFF flow control
	10	0Q2	Enable CTS flow control to the DTE
	11	0Q3	Enable bilateral CTS/RTS flow control
2	--	--	Reserved
3	*0	0G	Disable modem port flow control
	1	0G1	Enable modem port XON/XOFF flow control
4	*0	0X	No XON/XOFF characters to remote
	1	0X1	Pass XON/XOFF characters to remote
6, 5	00	0Q4	Disable flow control from DCE
	*01	0Q5	Enable XON/XOFF flow control
	10	0Q6	Enable CTS flow control to the DTE
	11	0Q7	Enable CTS flow control to the DTE
7	--	--	Reserved

* default

S55

Reserved

V.42 Compression
Control
S56

Bit	Value	Command	Description
1, 0	00	%C	Compression disabled
	01	%C2	Compression enabled on transmit data only
	10	%C3	Compression enabled on receive data only
	*11	%C1	Compression enabled on transmit and receive data
7-2	--	--	Reserved

* default

Number Code
Application
S57

Bit	Value	Command	Description
0	*0	*RC	Standard number codes 15 - 4800 bps
	1	*RC1	Alternate number codes 11 - 4800 bps
7-1	--	--	Reserved

* default

Inactivity Timer
S58

The S58 register specifies the number of minutes the modem waits before terminating a call when no data is sent or received. This register is active when in error control mode. 0 disables timer.

Bit	Value	Command	Description
7-0	*0 1-255	0T 0Tn	Disable Timer value in minutes (n=1-255)

* default

Break Control
S59

The S59 register determines the action taken when a break is encountered. Refer to Break Control section in Chapter 5 for further explanation.

Bit	Value	Command	Description
2-0	000	0K	Break option 0
	001	0K1	Break option 1
	010	0K2	Break option 2
	011	0K3	Break option 3
	100	0K4	Break option 4
	*101	0K5	Break option 5
7-3	--	--	Reserved

* default

Bit Mapped S60

Bit	Value	Command	Description
0	0 *1	%E %E1	Disable auto retrain Enable auto retrain
1	--	--	Reserved
2	*0 1	VC VC1	Disable auto-reliable data buffer Buffer data for 4 seconds or 200 characters
5-3	111 110 101 100 *011- 000	VO VU VY VZ	Originate an MNP link Accept an MNP link Switch to normal from MNP Mode selected from S70
6	0 *1	VR VR1	RI blinks for ring and remains on for duration of call RI blinks for ring and turns off when call is answered
7	*0 1	IV IV1	Disable protocol result codes Enable protocol result codes

* default

DTE Options S61

The S61 register indicates the character size and parity. This register is for reference only.

Bit	Value	Command	Description
2-0	--	--	Reserved
3	0 1		7 bit word length 8 bit word length
5, 4	00 01 10 11		Mark parity No parity Odd parity Even parity
7, 6	--	--	Reserved

* default

Disconnect Buffer Delay S62 The S62 register determines the delay before disconnect, to allow buffers to empty, when disconnect conditions exist.

Bit	Value	Command	Description
7-0	*0 1-255	%D %Dn	Buffer disabled Disconnect buffer delay value (n=1-255 seconds)

* default

Maximum Transmit Block Size S63 The S63 register sets the maximum transmit block size.

Bit	Value	Command	Description
7-0	63 127 191 *255	VA VA1 VA2 VA3	Maximum block size = 64 Maximum block size = 128 Maximum block size = 192 Maximum block size = 256

* default

Auto-Reliable Fallback Character S64 The S64 register stores the selected ASCII value of the auto-reliable fallback character.

Bit	Value	Command	Description
7-0	*0 1-127	%A %An	Disable auto-reliable fallback character ASCII value 1-127 (n=1-127)

* default

S65 Reserved

Bit Mapped S66

Bit	Value	Command	Description
0	0 1	&Y &Y1	User option 1 loaded at powerup/reset User option 2 loaded at powerup/reset
7-1	--	--	Reserved

Link Speed Status S67
The S67 register indicates the true data link (DCE) speed. This register is for reference only.

Bit	Value	Command	Description
3-0	0000		N/A
	0001		300 bps
	0010		1200 bps
	0011		2400 bps
	0100		4800 bps
	0111		7200 bps
	0101		9600 bps uncoded
1110	0110		9600 bps trellis
	1000		12000 bps
	1001		14400 bps
7-4	-	-	Reserved

* default

S68
Reserved

DCE Independent Speed S69
The S69 register selects the DCE independent rate operation. When S69 is 0, DTE and DCE rates are equal and the maximum originate connect rate up to 14400 bps is determined by S80. When S69 is non-zero, the maximum originate connect rate is determined by S69.

Bit	Value	Command	Description
3-0	0000	%B	Use rate indicated by S80
	0001	%B1	300 bps
	0010	%B2	1200 bps
	0011	%B3	2400 bps
	0100	%B4	4800 bps
	0111	%B5	9600 bps uncoded
	0101	%B6	9600 bps trellis
	0110	%B7	7200 bps
	1000	%B8	12000 bps
1001	%B9	14400 bps	
7-4	-	-	Reserved

* default

Operating Mode S70
The S70 register determines the protocol operating mode and action taken on an error correcting attempt failure. LAPM is assigned highest priority.

Example: With VN7 selected the modem tries a LAPM connection first; if unsuccessful the modem tries an MNP connection; if also unsuccessful the modem connects in normal mode. Modes allowing protocol fallback are referred to as auto-reliable.

Bit	Value	Command	Description
2-0	000	VN	Normal
	001	VN1	Direct
	010	VN2	MNP only (reliable)
	011	VN3	MNP or normal (auto-reliable)
	100	VN4	LAPM only (reliable)
	101	VN5	LAPM or normal (auto-reliable)
	110	VN6	LAPM or MNP only (auto-reliable)
111	VN7	LAPM or MNP or normal (auto-reliable)	
3	0	W4	Disable V.42 fast detect
	*1	WM1	Enable V.42 fast detect
7-4	-	-	Reserved

* default

Operating Mode Status S71
The S71 register indicates the level of error controlling protocol. This register is for reference only.

Bit	Value	Command	Description
2-0	000		Protocol not active
	001		Protocol negotiation in progress
	010		MNP level 2 active
	011		MNP level 3 active
	100		MNP level 4 active
	101		MNP level 5 active (MNP with data compression)
110	110		LAPM active
	111		LAPM with data compression active
7-3	-	-	Reserved

* default

Bit Mapped
S72

Bit	Value	Command	Description
0	*0	V	Disable slaved DTE/DCE (constant speed DTE on)
	1	V1	Enable slaved DTE/DCE (constant speed DTE off)
1	*0		Link parity option disabled
	1		Link parity option enabled
2	0		No link parity error
	1		Link parity error received (cleared on read)
3	0	&R2	CTS does not follow DCD
	1		CTS follows DCD
4	0		CTS does not equal RTS
	1	&R9	CTS equals RTS
6-5	--	--	Reserved
7	*0		Disable autocallback
	1		Enable autocallback

* default

S73-77

Reserved

Autocallback Timer
S78

The S78 register specifies the time in seconds that the modem waits before initiating autocallback. The default is 30 seconds.

Bit	Value	Command	Description
7-0	0-255		Time in seconds before autocallback

Break Length
S79

The S79 register sets the length of the break sent to the DTE when a break signal is received. Range from 1-255 in 20 ms increments. Default is 35 (700 ms).

Bit	Value	Command	Description
7-0	1-255	VB	Send break Set break length (n=1-255)

Serial Port Speed
S80

The S80 register indicates the serial port speed.

Bit	Value	Command	Description
3-0	0001		300 bps
	0010		1200 bps
	0011		2400 bps
	0100		4800 bps
	0101		7200 bps
	*0110		9600 bps
	0111		12000 bps
	1000		14400 bps
	1001		19200 bps
	1010		38400 bps
	1011		57600 bps
7-4	--	--	Reserved

* default

S81-83

Reserved

6
Status Registers

Bit Mapped
S84

Bit	Value	Command	Description
0	*0 1		Any key abort enabled Any key abort disabled
1	*0 1		Remote DCD goes low in RDL and remote configuration Remote DCD goes high in RDL and remote configuration
2	*0 1		Fallback to V.22 rates normally Reduced time to fallback to V.22 rates
3	*0 1		Answerback normally Reduced answerback time
4	*0 1		With DTR disconnects, 4 DTR transitions initiate dial backup With DTR disconnects, 1 DTR transition initiates dial backup
7-5	-	-	Reserved

* default

S85-90

Reserved

Chapter 7
V.25 bis Autodialer

GENERAL

V.25 bis is an option that allows dialing functions to be controlled using synchronous data.

Select V.25 bis through the appropriate &M command in the AT command set (Chapter 5).

If using the LCD

Scroll through the menu to Main Menu 5, MOD-IFY CONFIGURATION.

Advance to and enter the DTE PARAMETERS submenu.

Select SYNC DATA.

Advance to DIAL METHOD.

Select either V.25 BISYNC DIALER or V.25 SDLC DIALER or V.25 ASYNC DIALER and then select either ASCII or EBCDIC character format.

Note: The modem must be configured as V.25 SDLC ASCII NRZ for use with an AS400 IBM computer.

Autodialer
Command Strings
and Parameters

Most command strings for the autodialer include two parts: the command itself and the parameter(s) that follow. For the purposes of this chapter, parameters can be telephone numbers or anything appropriate to V.25 bis as described in the following text. Parameters are separated by semicolons.