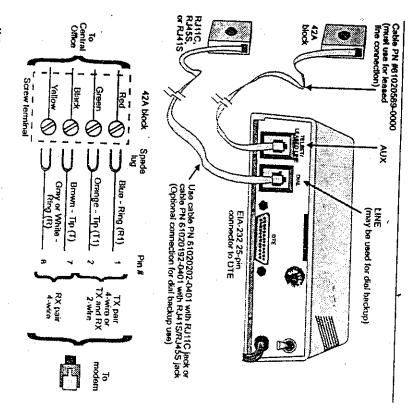
V.3400 Manual

For Sales or Service Contact:

Data Connect Enterprise 301-924-7400

http://www.data-connect.com/sales@data-connect.com

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- Notes:

 1. Set the transmit output level to 0 dBm.

 2. DTR, which is the signal on pin 20 of the DTE interface, must be active or the option DTE (GNORED must be set for 2-vare OR 4-vaire leased line operation.)

 3. The connection shown includes dial beddap. Connect only the 42A block to the AUX jack for regular leased line use.

Figure 2-4 Leased Line Connection



Getting Started Chapter 3

OPTION SELECTION

There are six ways to change or select options:

- straightforward, and requires the least amount of technical LCD - Using the front panel LCD and pushbuttons is simple. background. Chapter 4 explains LCD operation.
- AT Commands The AT compatible command set can be used to select modem options. Chapter 5 describes AT commands.
- V.25 bis Commands An extended set of V.25 commands allows selection of modem options during synchronous operation. Refer to Chapter 11.
- Status Registers A series of special ATS commands allows the operator to change the decimal or hexadecimal value of a memory describes S-registers. byte to change one or more options in that byte. Chapter 10
- commands allows the user to change single bits within a byte to Single Bit Status Registers - A second series of special ATS change an option. Chapter 10 explains single bit control
- software programs to interact with the modem. This manual does Software program - A wide variety of software programs are available, or advanced computer users can write their own not discuss software programs.

POWERUP

desired option set it will be automatically be restored at power up most public switched telephone applications. If a user has stored a on the rear panel to ON. The modem is factory configured to operate in A powerup procedure is not required. Turn the ON/OFF power switch

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PLACING A CALL

Using a Standard Telephone

- 1. Lift the telephone receiver. Wait for the dial tone.
- 2. Dial the number of the remote site.
- 3. When the answer back tone is heard, immediately press the TALK/DATA button and hang up the telephone. The moderns go through a connection sequence and establish a data link. If a data link is not established, return to the first step.
- 4. After the link is established, hang up the telephone.

Autodial from Front Panel

- 1. If no number to dial is stored yet advance to Main Menu #6, CHANGE PHONE NUMBER.
- 2. Enter the number using NO to scroll and YES to select.
- 3. When number is entered press YES to store the number.
- 4. Advance the LCD to main #2, DIAL STORED NUMBER.
- 5. Select number to dial and press YES to dial. After dialing the modems follow the same procedure as when using a standard telephone.

Autodial from a Terminal with the AT Command Set

To dial a number, for example 555-1212, type AT D 555-1212 and press Enter, or enter ATDSn where n equals the stored telephone number location 1-9 to dial.

The modem dials the number — either pulse or tone, whichever is currently in effect — and takes the role of the originate modem.

Refer to Dial Commands section in Chapter 5 for additional dialing commands.

ANSWERING A CALL

Autoanswer

Normally the modem is configured to autoanswer on the first ring. A telephone plugged into the AUX jack will also ring.

Manual Answer

On ring detection the modern LCD displays ringing status.

Press TALK/DATA to answer the call and place the modem in the data mode.

Answer from Terminal with AT Command Set

The modem displays the ring response.

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To answer an incoming call type ATA. The modem begins sending an answer back tone and attempts to connect to the remote modem.

ENDING A CALL

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Call Termination from Front Panel

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- Press TALK/DATA and DO YOU WANT TO DISCON-NECT will be displayed.
- Answer YES.

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Call Termination from Terminal with AT Command Set

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- 1. Enter +++ and the modem will enter command mode.
- 2. Enter ATH and the modem will terminate the call.

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Reasons for Call Termination

The following conditions cause call termination.

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Condition	Description
Abort Disconnect (No answer, busy signal, no modem, etc.)	Default 30 sec; select 1 to 255 sec (S-register 7)
ATH .	Disconnect command
Loss of Carrier Disconnect	Select 100 ms to 25.5 sec (S-register 10)
Receivé Long Space Disconnect	Disabled or select 2 sec
DTR Disconnect	Disabled or select 10 ms to 2.55 sec (S-register 25)
Loss of Line Current	
Cleardown	A disconnect method used in V.32 and V.34 mode.
LCD Display	When TALK/DATA is pressed, the LCD displays DO YOU WANT TO GO TO TALK? When YES
	is pressed modem hangs up, if no telephone is connected or if the connected telephone is not off hook. Pressing NO displays DO YOU WANT TO DISCONNECT? Press YES to disconnect.
Train Timcout	Modem fails to establish communication with remote site. Default is 30 seconds (S-register 7)
Protocol Link Establishment Failure	Reliable mode only; failure to establish reliable link
Inactivity Timeout	Default is 0 or disabled; select for disabled or 1 to 255 minutes (S-register 8)
Protocol Retry Limit Exceeded	12 retransmissions of the frame
Minimum DCE Speed	A connection occurred at a rate less than minimum
Security Password Failure	Maximum password entry attempts exceeded
Security Callback	Security callback is enabled and a new remote connection is established. The modern disconnects and places a call to the programmed number
Signal Quality	Leased line operation with dial/backup enabled: extended loss of carrier or 4 unsuccessful retrains in 3 minutes cause dial backup
Test Mode entered	Certain test modes require call termination
Modem power is turned off.	

Chapter 4 Front Panel Operation

GENERAL

The function of the LCD front panel is to provide easy real-time access to modem configuration and status. The LCD can be used at any time to modify modern options or obtain information about modem operation and status. All of the major options of the modern can be controlled through the LCD interface without an external terminal or phone line connection. Operation of the LCD can be secured using a password protection feature. A remote modern can even be configured using the local LCD through the use of the front panel remote configuration feature.

LED DESCRIPTIONS

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The V.3400 has six LED indicators: TR, CS, RS, CD, RD, and TD. The functions of these LEDs are as follows:

TR - Terminal Ready. This LED lights when the DTE asserts Data Terminal Ready. This signal is input on pin 20 (CCITT V.24/108.2).

CS - Clear to Send. This LED lights when the modem is ready to send data to the DTE. This signal is output on pin 5 (CCITT V.24/106).

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RS - Request to Send. This LED lights when the DTE is ready to send data to the modem. This signal is input on pin 4 (CCITT V.24/105).

CD - Carrier Detect. This LED lights when the received audio carrier signal is detected or, if enabled, when error control protocol negotiation is complete. This signal is output on pin 8 (CCITT V.24/109).

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RD - Received Data. This LED lights for a data space condition at the receive data output, indicating receive data output activity. This signal is output on pin 3 (CCITT V.24/104).

TD - Transmit Data. This LED lights for a data space condition at the transmit data input, indicating transmit data input activity. This signal is input on pin 2 (CCITT V.24/103).

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LCD MENUS

The V.3400 has seven main LCD menus that support modern operations. Table 4-1 lists them in the following sequence:

- MODEM STATUS
- DIAL STORED NUMBER
- DISPLAY STATUS
- SELECT TEST
- MODIFY CONFIGURATION
- CHANGE PHONE NUMBERS
- FRONT PANEL FEATURES

LCD MENU OPERATION

The LCD menu is portrayed by a six column table (Table 4-1). The first column lists the seven main menu categories. The second column is the submenus, listing functions for each category in the main menu. The third column lists specific items for submenu functions. The fourth column lists option choices or status for the specific items in the third column. The fifth and sixth columns in the table show associated AT commands and S-registers as a cross reference.

Each column item has a corresponding header in the previous column. If an option setting is selected or if all settings have been scrolled through, the display will return to that header.

Because of the menu structure and option choices not all main menus use all four columns in Table 4-1. However, option selection and sequence are the same.

In general, while operating in the option menu, pressing NO scrolls vertically down the columns and pressing YES advances horizontally across the columns. However, responding to the LCD prompt is the best method to reach an option.

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If the NO pushbutton is pressed and held, the LCD scrolls through the menus.

Press the TALK/DATA button to return to the previous menu.

Table 4-1. Menu Options

### A 28800 IDLE ### A 28800 IDLE ### CUTTENT modulation, rate, and modern status. #### UBMENU ITEM	1		EXIT	TOOP WITH THE			:
## A 28800 IDLE ## A 29				റ്			
MAIN 2) modulation. ds. ITEM ITEM OPTION COM. 11-9 VES, NO DSn COM. PENUTIEM DISPLAY STATUS OFF OFF OFF OFF OFF OFF OFF O			ATE,	1	(Offline test only)	SELECT (. 4
28800 IDLE 28800 IDLE Shows the current modulation, tre, and modern status. BMENU SUBMENU ITEM DIAL #1-9 DIAL #1-9 PRES. NONE RI ON/OFF RI ON/OFF NONE PRES. NONE PRES. NONE RECEIVE LEVEL FAR END ECHO LEVEL FAR END ECHO DELAY FREQUENCY TRANSLATION BA UD RATTE TX BIT RATE		5		DISPLAY STATUS	AST DISCON- VECT REASON	7 5	
28800 IDLE 28800 IDLE Shows the current modulation, tte, and modern status. DIAL #1-9 DIAL #1-9 DISPLAY ALS OH ON/OFF RI ON/OFF RI ON/OFF NONE LAPM PRES- NONE LAPM PRES- NONE LAPM PRES- NONE LAPM PRES- NONE NONE LAPM PRES- NONE RECEIVE LEVEL DISPLAY LEVEL FAR END ECHO F				FREQUENCY TRANSLATION BAUD RATE RX BIT RATE TX BIT RATE			
28800 IDLE 28800 IDLE Shows the current modulation, tte, and modem status. DIAL #1-9 DIAL #1-9 DISPLAY ALS OH ON/OFF RI ON/OFF RI ON/OFF OCOL* NONE MNP 2, 3, 4, or 5 LAPM PRES. NONE NONE RECEIVE LEVEL STATUS NEAR END ECHO STATUS S* (Press NO to advance to advance to advance to make a press of the current modulation. ITEM AT OPTION OPTION (n-1-9) DISPLAY (n-1-9) DISPLAY DISPLAY DISPLAY LEVEL DISPLAY LEV				FAR END ECHO LEVEL FAR END ECHO DELAY			
28800 IDLE 28800 IDLE Shows the current modulation, tre, and moden status. BMENU DIAL #1-9 PRES- NONE NONE NONE NONE NONE MNP 5, V.42b PRES NO to advance to divance	: 1	i	DISPLAY STATUS		CARRIER DESCRIP- TIONS*		
O IDLE OR IDLE OWS the current modulation, and modern status. ENU SUBMENU ITEM DIAL #1-9 POSR ON/OFF OH ON/OFF RI ON/OFF RI ON/OFF NONE MNP 2, 3, 4, or 5 STATUS DO HONGE LAPM POSS NO IDSPLAY OH ON/OFF RI ON/OFF STATUS DISPLAY LAPM AT OPTION AT OPTION (n-1-9) DISPLAY LAPM DISPLAY LAPM AT OPTION DISPLAY LAPM AT OPTION DISPLAY LAPM DISPLAY LAPM STATUS STATUS STATUS AND IDSPLAY LAPM AT OPTION DISPLAY LAPM AT OPTION DISPLAY LAPM AT OPTION DISPLAY LAPM AT OPTION DISPLAY LAPM STATUS STATUS STATUS	: 1		DISPLAY STATUS	NONE MNP 5, V.42b	COMPRES- SOR*		
DIAL #1-9 QM ON/OFF RI ON/OFF RI ON/OFF RI ON/OFF RI ON/OFF RI ON/OFF DIAL #1-9 QM ON/OFF RI ON/OFF RI ON/OFF RI ON/OFF RI ON/OFF Coman AT (PES) NO DSn (PISPLAY (P.1-9)) COM.			DISPLAY STATUS	NONE MNP 2, 3, 4, or 5 LAPM	PROTOCOL*		·····
(Press NO to advance to MAIN 2) rodulation. ITEM OPTION COM. 9 YES, NO DSn (n-1-9)		:	DISPLAY STATUS	QM ON/OFF DSR ON/OFF OH ON/OFF RI ON/OFF	DTE	3 DISPLAY STATUS? (status only)	
(Press NO to advance to MAIN 2) rodulation. ITEM AT OPTION COM.		DSn (n-1-9)	YES, NO	DIAL #1-9	·	2 DIAL STORED NUMBER?	· · · · · ·
todulation,	S- REG	COM.	OTTEM	SUBMENUITEM	SUBMENU	MAIN MENU	
(Press NO to advance to				e current modulation, dem status.	Note: Shows th bit rate, and mo		1
		advance to	(Press NO to a	Ħ	V.34 28800 IDI	STATUS	
I OF MESS LONG				LCD MESSAGES	I.CD	MAIN MENU	

^{*} When modem is not ordine, the display flashes and shows the status from the last connection

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7;	010 T-1 112011	" Opino	ns (commuteu)			į
3	MAIN MENU	SUBMENU	SUBMENU ITEM	OFTION	COM	₹ 7
0 A	SELECT TEST?	(Online test)	LOCAL DIGITAL	INTIATE.	&T3	
	(continued)		REMOTE DIGITAL LOOP †	INITIATE. EXIT	913	816
			REMOTE DIGI TAL LOOP WITH TP †	INITIATE. EXIT	&17	S16
	.		TEST PATTERN†	INITIATE. EXIT	%T	
Ļĸ	MODIFY CONFIGU-	CHANGE MODEM	CHANGE LEASED/ DIAL LINE?	2 WIRE 4 WIRE	&۱.	S27
	31087	OP HONO?	CHANGE MODULATION?	Ĕ	MW.	888
				BELC 103 B212A V.22 bis V.27 m. *	MMI MMI MMI MMI MMI MMI MMI MMI MMI MMI	
				V.29 * V.33 *	OHWW.	5 ~
				V.32bis V.34	*MMII	<i>γ</i> ν
			CHANGE MAX DCE RATE?		%B15 %B14	\$69
		÷		21600	%B12	
					7 B I	
				1400	2 B B B B B B B B B B B B B B B B B B B	
				_	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
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				0000	\$ 5 5 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
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					68%	
					33.33	
				DTE SPEED	30 ± 00 00 ± 00	
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Table 4-1. Menu Options (Continued)

SUBMENU SUBMENU ITEM CAL SOCIED	MAIN MEN			NOLLIO	COM.	X.
MODIFY CHANGE CHANGE MIN 28800 CONFIGU- MODEM DCE RATE? 24000 %L14 RATION? OPTIONS? 21600 %L13 19200 %L12 19200 %L13 19200 %L13 19200 %L14 19200 %L15 19200 %L16 19200 %L16 19200 %L16 19200 %L16 19200 %L16 19200 %L16 19200 %L5 4800 MED BER *THI ORGED FORCED FOR	S MODIFY					Ī
CONFIGU- MODEM (CONTINUED) DEFRATE? 26400 (St.14 actions) Continued) Continue					%L15	869
RATION? Continued Continue					%L14	
Continued Con					%L13	
15800 34.10 14400 34.19 14400 34.19 12000 34.15 3600U 34.20 36.2					%L1%	
14400 %L9 12000 %L8 12000 %L8 12000 %L5 4800 %L5 4800 %L3 1200 %L3 1200 %L3 1200 %L3 1200 %L3 1200 %L3 1200 %L2 1800 HER *TH12 1800 HE 632 1800 HE					%L 10	
12000 %L8 7200 %L8 7200 %L5 9600 %L5 9600 %L5 9600 %L5 9600 %L5 9600 %L3 2400 %L3 2400 %L3 2400 %L3 2400 %L2 2400					%L9	
7200 7200 7200 7200 7200 7200 7200 7200					%L8	
9600 %L6 9600U %L5 4800 %L5 4800 %L5 4800 %L5 4800 %L5 4800 %L5 4800 %L5 2400 %L5 96L2 DISABLED %L DISABLED %L HIGH BER *TH1 HIGH BER *TH1 ENABLE *AS AL ORIG ED DISABLE *AS FORCED *OR1 ENABLE *AS FORCED *OR1 ENABLE &&G FORCED *OR1 ENABLE &&G FORCED *FT DISABLE *FT DISABLE *FT DISABLE *FT DISABLE *FT DISABLE *R2 UTO HIGH BER %R3					%L7	
90000 9000 9000 9000 9000 9000 9000 90					%L6	
2400 2400 2400 2400 2400 2400 2400 2400		•			2 L 2 L 4 L	_
1200 %L2 DISABLED %L1 DISABLED %L1 DISABLED %L1 DISABLE %TH1 HIGH BER *TH2 SYM					%L3	
DISABLED %L1					%L2	
DISABLED %L GE V.34 LOW BER *TH THRESH- HIGH BER *THII SYM ENABLE *ASI SYM ENABLE *ASI SYM ENABLE *ASI SYM ENABLE *ASI ORIG. FORCED ORIG. FORCED *ORI FORCED *FFI JENABLE *FFI JIRAIN ENABLE *R JOTO HIGH BER %R JOTO HIGH BER %R JONABLE MAR JONA				BLED	1.7%	
GE V.34 LOW BER *TH THRESH- MED BER *THI HIGH BER *THI HIGH BER *THI HIGH BER *THI HIGH BER *ASI SYM ENABLE *ASI DISABLE *ASI DISABLE *ASI DISABLE *FI DISABLE *RE *RE UNG BER %R 2 LOW BER %R 2 NOTO DISABLE DISABLE DISABLE DISABLE THE MED BER %R 2 NOTO DISABLE DISABLE *RE UNG BER %R 2 NOTO DISABLE *RE UNG BER %R 2 NOTO DISABLE *RE WAR 2 NOTO DISABLE *			<u> </u>		J%L	_
SYM			CHANGE V.34		HL.	:
SYM ENABLE *ASI S S ORIGE ORIGE ORIGE FORCED ORIGE FORCED FORCED FORCED FORCED FORCED FOR CED *ORI *FORI **FORI ***FORI ***FORI ***FORI ***FORI ***FORI ***********************************			RATE THRESH-	_	.TH2	
DISABLE *AS AL NORMAL *OR VATE ORIG EN PORCED *ORI ER* ANS. UARD TONE DISABLE &G 550 Hz &G 550 Hz &G 1800 Hz &G AST TRAIN ENABLE *FT TRAIN ENABLE *FT DISABLE *FT DISABLE *FT TRAIN ENABLE %E IIIGH BER %R3 MED BER %R2 LOW BER %R2 LOW BER %R1 DISABLED %R SMIT CLOCK INTERNAL &X ITC EXTERNAL &X SMIT CLOCK INTERNAL &X SMIT CLOCK INTERNAL &X			V34 ASYM		+ASI	88
NORMAL *OR ORIG. FORCED *ORI ANS. TONE DISABLE &&G 550 Hz &&G 550 Hz &&G 1800 Hz &&G RAIN ENABLE *FT DISABLE *FT DISABLE *FT DISABLE 76E HIIGH BER 76R LOW BER 76R CLOCK INTERNAL &X EXTERNAL &X			RATES	(*)	*AS	
ORIG. FORCED ORIG. ANS. TONE DISABLE &G S50 Hz. &G S50 Hz. &G S70			NORMAL	NORMAL	*OR	S14
WER* ANS FER* ANS ANS SOUTH ANS ANS SOUTH ANS SOUTH ANS SOUTH ANS ANS ANS ANS ANS ANS ANS ANS			ORIGINATE	ORIG.	Ĉ.	
UARD TONE DISABLE &G 550112 &G 550112 &G 550112 &G 550112 &G 1800 H; &G 1800			ANSWER*	ANS.	OR I	
SO II	•		V.22 GUARD TONE	_	&G	S23
AST TRAIN ENABLE *FII DISABLE *FII DISABLE *FII ENABLE *FII DISABLE *EI DISABLE *EI DISABLE *EI DISABLE *EI OW BER *R2 LOW BER *R2 LOW BER *R1 DISABLED *R SMIT CLOCK INTERNAL &X EXTERNAL &X CT EXTERNAL &X						
AST TRAIN ENABLE *FI TRAIN ENABLE *FI ENABLE *FI DISABLE *FI WEB BER %E JTO HIGH BER %R MED BER %R2 LOW BER %R1 DISABLED %R SMIT CLOCK INTERNAL &X CT EXTERNAL &X EXTERNAL &X				1000111.	801	; -
TRAIN ENABLE %E1 DISABLE %E DISABLE %E MED BER %R3 MED BER %R2 LOW BER %R1 DISABLED %R DISABLED %R SMIT CLOCK INTERNAL &X CT EXTERNAL &X			V.32 FAST TRAIN	DISABLE	• <u>•</u> •••	- 5
JTO HIGH BER %R3 MED BER %R2 LOW BER %R1 DISABLED %R DISABLED %R SMIT CLOCK INTERNAL &X CT EXTERNAL &X			SQ RETRAIN	ENABLE DISABLE	3%E 13%	S60
MED BER %K3 MED BER %R2 LOW BER %R1 DISABLED %R DISABLED %R SMIT CLOCK INTERNAL &X CT EXTERNAL &X					2	+
DISABLED 75R AIT CLOCK INTERNAL &X EXTERNAL &X		····	SQ AUTO RATE	HIGH BER	%R3 %R2	SS3
AIT CLOCK INTERNAL &X EXTERNAL &X				DISABLED	%R	
		<u> </u>	TRANSMIT CLOCK		<u>~</u> &	S27

^{*} Lease line only

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[†] Modem must be online with protocols disabled Lease line only

Table 4-1. Menu Optic
ptions (Continued)

	, , , , , , , , , , , , , , , , , , , ,	,			
MAIN MENU	SUBMENU	SUBMENUITEM	NOLLAO	COM.	REG
	CHANGE	DIAL LINEJACK †	PER - RJ11 PROG - RJ15	%Z.	S51
n (continued)	(continued)	DIAL TRANSMIT LEVEL	-9 dBm to -21 dBm	*TDn	S.S.1
		LEASE TRANSMIT	0 to -21 dBm	*ILn	S52
T12		LINE CURRENT	OFF	. I.C.	22
<u> </u>		DISCONNECT †	ດ <u>ຊ</u>	*LC1	
7		LONG SPACE DISCONNECT †	ENABLE DISABLE	۲۲ ۲	S21
		DIAL BACKUP*	Ì	*DB	S.32
			MATIC	180	
		LOOKBACK TIME*	ODISABLED	;	S28
			MINUTES		
	CHANGE	LAPM PROTOCOL	ENABLE	N4, N5.	S70
	OPTIONS?		DISABLE	N. N.	
		MNP PROTOCOL	ENABLE	- 1	\$70
			DISABLE	N4. NI.	
		PROTOCOL FALLHACK	ENABLE	\N., \N.5.	S70
	-		DISABLE	N2 /N1.	
		DATA COMPRES. SION	DISABLE O	%C	556
			TX RX	3 2 2 3	
		DTE SPEED	DTE=DCE CONSTANT DTE	۲۲.	\$70
Lease Line only				_	

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Table 4-1. Menu Options (Continued)

S61	1	NO, EVEN, ODD	PARITY (Async)		
S61	ì	7 BIT 8 BIT	CHAR SIZE (Async)		
		24(0), 48(0), 72(0), 96(0), 120(0), 144(0), 168(0), 192(0), 384(0), 216(0), 216(0), 264(0), 288(0), 57(6(0), 57(6(0),			
S80	1	300. 600,1200.	DTE RATE (Async)		
S27 S30	&M1, 2, 3, 4, 5, 6 &M	SYNC ASYNC	OPERATION	CHANGE DTE OPTIONS?	·
S70	Z Z	ENABLE DISABLE	V.42 FAST DETECT		
359	\K,\K1, \K2,\K3, \K4,\K5	0. 1. 2. 3. 4. 5	BREAK		
558	\TLn	OFF, 15, 30, 45, 60, 75, 90 MIN	TIMER		
S54	IX.	DISABLE	XON/XOFF PASS THROUGH		
S54	Q. Q. Q. Q. Q. Q.	DISABLE XON/XOIT CTS	DCE FLOW CONTROL		
	\(\frac{1}{2}\)	KTS/CTS		(continued)	n (continued)
S54	<u>ූිර</u> ුත්	XDIJE /XOFF	DTE FLOW CONTROL	CHANGE PROTOCOL	5 MODIFY c CONFIGU-
REG	COM.	OFTEM	SUBMENUITEM	SUBMENU	MAIN MENU
			пинива)	n Options (Co	Table 4-1. Menu Options (Continued)

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lable 4-1. Menu Options (Continued)	u Options (Co	munued)	•		
MAIN MENU	SUBMENU	Nallonamens	OFTON	AT COM.	S- REG
MODIFY	CHANGE DIE	DIAL METHOD	ASYNC	&M1.&M S27	S27
o RATION?	OPHONS:		MANUAL,	ENG ENG	3,30
		٠		&M4	
			V.25 SDLC	&W2	
				&M6	
			async		
		AT COMMAND SET	DISABLE	T N	S29
		CHARACTER	ASCII.		08.8
		TYPE (V.25 only)	EBCDIC		
-		SDLC DATA FOR- MAT	NRZ, NRZJ	-	S30
		DTR STATE	IGNORE:		125
			Ξ	&D1	
			DISCON-	£03	
,			RESET		
		DSR STATE	NORMAL FORCED	&S)	S2I
			OFF 5 SEC	AS2	
•			DISCON.	&S3	
			OH FOLLOWS		
		DCD STATE	NORMAL FORCED	0.8 1.0.8	128
			OFF: 5 SEC	&C2	
			CN CN	-	
			DISCON-	&C3	
			FOLLOWS		
			RTS		

771	(A)		M	m	M		m	M	
						<u>ua</u>			

														t. (considera)	o RATION?		MAIN MENU	Table 4-1. Men
				•	CHANGE DIAL DIAL OPTIONS?					CHANGE TEST OPTIONS?					(continued)	CHANGE DTE	SUBMENU	Menu Options (Continued)
CALL TIMEOUT	PAUSE DELAY	WAIT DELAY (Blind Dial)	DIAL TONE	AUTODIAL #	DIAL TYPE	TEST TIMEOUT	REMOTE COM- MANDED	DTE REMOTE TEST	DTE LOCAL	BILATERAL DIGITAL LOOP	OPTIONS RES/ RETND AT DISC	DTE COM- MANDED FALLBACK	RTS/CTS DELAY			CTS STATE	SUBMENU ITEM	ntinued)
15, 30, 45, 60, 75, 90, 105, 120 SEC	1, 2, 3, 4, 8, 16, 32 SEC	1, 2, 3, 4, 8, 16, 32 SEC	BLIND DIAL WAIT FOR DIAL TONE	OFF, 1 · 9	PULSE, TONE	OFF, 60, 120, 180, 240 SEC	ENABLE DISABLE	ENABLE DISABLE	DISABLE	ENABLE DISABLE	RESTORED RETAINED	ENABLE DISABLE	0 to 150 ms (10 ms)		`	NORMAL	OTTON	
•	!		X, X1, X3 X2, X4	*AUn (n=1-9)	P, T		&T4 &T5	RD1,	LA!	DG 190•	•ROI •RO	*FB1		&R9		&R R	AT COM	
S7	88	86	322	1	S14	\$18	S23	S34	S34	S34	S29	\$53	S26	j	S72	S21	S- REG	

12

I.

Table 4-1. Menu Options (Continued)

						= o c	رد ا در
PANEL FEATURES?	CHANGE PHONE NUMBERS?		-				MAIN MENU
			LOAD/STORE OPTION SET?		CHANGE SPEAKER OPERATION?	OPTIONS? (continued)	SUBMENU CHANGE DIAL
PASSWORD? ENTER REMOTE CONFIGURATION EXIT REMOTE EXIT REMOTE CONFIGURATION	PHONE NUMBER	STORE PRESENT OPTIONS USER OPTION AT RESET	LOAD FACTORY OPTION LOAD USER OPTION SET	SPEAKER CONTROL	VOLUME CONTROL		SUBMENU ITEM
PASSWORD ENTER REM CFG PASSWORD EXIT	ENTER NUMBER 32 digits	2 - 2	NO, 1-9	ON UNTIL MI CARR DETECT ALWAYS ON M2 OFF WHILE M3 DIALING ALWAYS M	HIGH MEDIUM LOW	ENABLE, DISABLE	OPTION 15 2 4 8 16
%P %T &T	&Zn (n= phone # and modi- fiers) *CNn,x	&W &Y &Y	&Fn (n=1-9) Z0 Z1	M1 M2 M3	L1 L2 L3	1	COM
		i I	!	S22	S22	S72	REG

	-	[[]	
ř	<u>li f</u>	HF	
ņ	* F =	0 0 7	7 2







































įir

either becomes inactive or returns to its active state. During password entry, the front panel buttons are interpreted as follows

acter. cursor to change to the next valid password char-Pressing the NO button causes the character at the Table 4-1. Menu Options (Continued)

M.	MAIN MENU	SUBMENU	SUBMENUITEM	OFTION	AT S- COM. REG	S- REG
٦	FRONT		CHANGE FRONT	ENTER	•	Ī
C	PANEL		PANEL PASSWORD PASSWORD	PASSWORD		
0	FEATURES?			•		
2	(continued)			ACHVAIE	***	
				SECURITY		

assword of 0000 disables front panel security

FRONT PANEL SECURITY

The Front Panel Security feature provides password protection for front panel menu access. The modem is shipped from the factory with this feature disabled.

of "0000" disables Front Panel Security; any other password enables it. any combination of digits from "0000" to "9999". Selecting a password The Front Panel Security password is a 4-digit string that can be set to

may be explicitly activated via a front panel screen under Main Menu has been entered, a message briefly displays the result of the password pressed for 3 minutes. When Front Panel Security is activated, the front #7, or the modern will activate it when no front panel buttons have been When this feature is enabled there are two ways it may be activated. It validation process and, depending on the result, Front Panel Security panel screens may be accessed. Pressing any front panel button causes tain modem status, but a password must be entered before other front While in this secured state, the Main Menu #1 screen continues to mainthe modem to prompt for the front panel password. After the password become secured. panel menu will return to Main Menu #1 and the front panel will

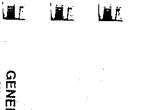
Z[

YES

accept the displayed password. cursor to advance to the next password character. of the first three password characters causes the pressing the YES button causes the modem to When the cursor is on the last password character, Pressing the YES button while the cursor is on any

TALK/DATA

move to the first password character. any other character, this button causes the cursor to word entry to be aborted. When the cursor is on is on the first password character causes the pass-Pressing the TALK/DATA button while the cursor



GENERAL

AT Commands

Chapter 5

This chapter describes commands used to select options and to operate the modern. Some options depend on or are restricted by the mode of operation.

COMMAND CATEGORIES

The modem offers eight major categories of command statements:

- Response
- Dial

II.

- Answer
- Terminal Interface
- General

- Private Line
- Configuration
- Remote Configuration

chapters: Six other groups of AT commands are discussed in their respective

Protocol

- Test
- Security

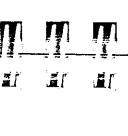
- Fax
- S-registers

OPERATION MODES

During asynchronous operation the modem functions in one of three modes:

- Offline Command Mode
- Online Command Mode

Data Mode



4.12