DIP SWITCHES: UP = OFF DOWN = ON

Switch	Factory Setting	Function
1	UP	Data Terminal Ready Operations
	UP	DTR normal: required for modem to accept commands, dropping DTR terminates a call
	DOWN	DTR always ON (Override)
2	UP	Verbal/Numeric Result Codes
	UP	Verbal (word) messages
	DOWN	Numeric result codes
3	DOWN	Result Code Display
	UP	Quiet mode, no display
	DOWN	Result codes displayed
4	UP	Command Mode Local Echo
	UP	Modem echoes (displays) commands
	DOWN	Modem does not echo
5	DOWN	Auto Answer
	UP	Modem answers on first ring
	DOWN	Auto Answer Suppressed
6	UP	Carrier Detect Operations
	UP	CD indicates the modem is online and a carrier signal is present
	DOWN	Carrier Detect signal always ON (Override)
7	UP	Auxiliary Switch, DIP Switch 3 DOWN
	UP	Result codes displayed in both Originate and Answer modes
	DOWN	Result codes suppressed in Answer mode
8	DOWN	AT Command Set Recognition
	UP	AT command set recognition disabled
	DOWN	Normal operations
9	UP	Escape Code (+ + +) Response
	UP	Modem disconnects, returns to Command Mode, returns NO CARRIER result
	DOWN	Modem keeps line open, returns to Command Mode, returns OK result
10	UP	Power-on Software Defaults
	UP	Load from NVRAM
	DOWN	Load factory settings
Quad Switch	UP	Send/Receive pin assignments, DTE/modem interface
	UP	Normal
	DOWN	Reversed

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S-REGISTERS

Register	Function	Default
S0	Set number of rings before automatic answering when DIP switch 5 is UP. Default = 1. S0 = 0 suppresses Auto Answer, equivalent to DIP switch 5 DOWN.	See DIP Switch 5
S1	Counts and stores number of rings from an incoming call.	0
S2	Define escape code character. Default = +.	43
S3	Define ASCII Carriage Return.	13
S4	Define ASCII Line Feed.	10
S5	Define ASCII Backspace.	8
S6	Set number of seconds modem waits before dialing.	2
S7	Set number of seconds modem waits for a carrier.	60
S8	Set duration, in seconds, for pause (,) option in Dial command and pause between command re-executions for Repeat (>) command.	2
S9	Set duration, in tenths of a second, of remote carrier signal before recognition.	6
S10	Set duration, in tenths of a second, modem waits after loss of carrier before hanging up.	7
S11	Set duration and spacing, in milliseconds, of dialed Touch-Tones.	70
S12	Define guard time, in 50ths of a second, for escape code sequence.	50
S13	Bit-mapped register: 1 Reset when DTR drops 2 Auto Answer in Originate Mode 4 Disable result code pause 8 DS0 on DTR low-to-high 16 DS0 on power up, ATZ 32 Disable HST modulation 64 Disable MNP Level 3 128 Watchdog hardware reset	0
S15	Bit-mapped register: 1 Disable high-frequency equalization 2 Disable online fallback 4 Force 300-bps back channel 8 Set non-ARQ Transmit buffer to 128 bytes 16 Disable MNP Level 4 32 Set Del as Backspace key 64 Unusual MNP incompatibility 128 Custom applications only	0
S16	Bit-mapped register: 1 Analog Loopback 2 Dial Test 4 Test Pattern 8 Initiate Remote Digital Loopback 16 through 128, Reserved	0
S18	&T*n* Test timer, disabled when S18 is set to 0 seconds.	0

S-REGISTERS

Register	Function	Default
S19	Set Inactivity Timer, minutes.	0
S21	Length of Break, DCE to DTE, in 10-millisecond units.	10
S22	Define ASCII XON.	17
S23	Define ASCII XOFF.	19
S24	Sets duration, in 20-millisecond units, of pulsed DSR when modem is set to &S2 or &S3.	150
S26	Sets duration, in 10-millisecond units, of delay between RTS and CTS, synchronous mode.	1
S27	Bit-mapped register: 1 Enable V.21 modulation, 300 bps 2 Enable unencoded V.32 modulation 4 Disable V.32 modulation 8 Disable 2100 Hz answer tone 16 Disable MNP handshake 32 Disable V.42 Detect phase 64 Reserved 128 Unusual software incompatibility	0
S28	Sets duration, in tenths of a second, of V.32 handshake delay.	8
S29	Sets duration, in tenths of a second, of V.21 handshake delay.	20
S32	Voice/Data switch options: 0 Disabled 1 Go off hook in Originate mode 2 Go off hook in Answer mode 3 Redial last-dialed number 4 Dial number stored at position 0 5 Auto Answer toggle on/off 6 Reset modem 7 Initiate Remote Digital Loopback 8 Busy out phone line toggle	1
S34	Bit-mapped register: 1 Disable V.32 *bis* 2 Disable Enhanced V.32 mode 4 Disable Quick V.32 Retrain 8 Enable V.23 modulation 16 Change MR LED to DSR 32 Enable MI/MIC 64 Reserved 128 Reserved	0
S38	Sets duration, in seconds, before disconnect when DTR drops during an ARQ call.	0
S41	Sets number of allowable login attempts for remote access.	0
S42	Define ASCII remote access escape character.	126
S43	Define guard time, in 50ths of a second, for remote access sequence.	100

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COURIER™
HIGH SPEED MODEMS

QUICK-REFERENCE CARD

COURIER HST Dual Standard™ with ASL™

COURIER HST Dual Standard FAX™ with ASL™

COURIER V.32 *bis*™ with ASL™

COURIER V.32 *bis* FAX™ with ASL™

COURIER HST™ with ASL™

COURIER HST FAX™ with ASL™

COURIER HIGH SPEED MODEMS

BASIC COMMAND SET

Command	Function/Options
&	See Extended Command Set.
%	See Extended Command Set.
A	Force Answer mode when modem hasn't received an incoming call.
A/	Re-execute last command once.
A>	Repeat last command continuously.
Any key	Terminate current connection attempt; exit Repeat mode.
AT	Attention: *must* precede all other commands, except A/, A> and + + +.
B*n*	Handshake options. B0 V.32/V.32 *bis* mode; CCITT answer sequence B1 HST mode; Bell answer tone
D*n*	Dial the number that follows and go into Originate Mode. Use any of the following options: P Pulse dial—Default T Touch-Tone dial , (Comma) Pause for 2 seconds ; Return to command state after dialing "... Dial the letters that follow ! Flash switch-hook to transfer call W Wait for second dial tone (if X3 or higher is set) @ Wait for an answer (if X3 or higher is set) R Reverse frequencies
DL	Dial the last-dialed number.
DS*n*	Dial number stored in NVRAM at position *n*.
E*n*	Command mode local echo. Not applicable once a connection has been made. See DIP switch 4. E0 Echo OFF E1 Echo ON
F*n*	Local echo ON/OFF once a connection has been made. F0 Echo ON (Half Duplex) F1 Echo OFF (Full Duplex)—Default
H*n*	On/off hook control. H0 Hang up (go on hook)—Default H1 Go off hook
I*n*	Inquiry. I0 Return product code I1 Return memory (ROM) checksum I2 Run memory (RAM) test I3 Return call duration/real time I4 Return current modem settings I5 Return NVRAM settings I6 Return link diagnostics I7 Return product configuration
K*n*	Modem clock operation. K0 At ATI3, display call duration—Default K1 At ATI3, display real time; set clock with ATI3 = HH:MM:SSK1
M*n*	Monitor (speaker) control. M0 Speaker always OFF M1 Speaker ON until carrier is established—Default

BASIC COMMAND SET

Command	Function/Options
	M2 Speaker always ON M3 Speaker ON after last digit dialed, OFF at carrier detect
O*n*	Return online after command execution. O0 Return online, normal O1 Return online, retrain
P	Pulse dial.
Q*n*	Result codes display. Q0 Result codes displayed Q1 Result codes suppressed (Quiet mode) Q2 Quiet in Answer mode only
S*r*=*n*	Set Register commands: *r* is any S-register; *n* must be a decimal number between 0 and 255.
S*r*.*b*=*n*	Set bit *.b* of Register *r* to *n* (0/OFF or 1/ON).
S*r*?	Query register *r*.
T	Tone dial.
V*n*	Verbal/Numeric result codes. See DIP switch 2. V0 Numeric Mode V1 Verbal Mode
X*n*	Result Code options 0–7. See table in Chapter 5 of manual. Default is X1.
Z	Software reset. See DIP switch 10.
+ + +	Escape code sequence, preceded and followed by at least one second of no data transmission. See DIP switch 9.
/	(Slash) Pause for 125 msec.
>	Repeat command continuously or up to 10 dial attempts. Cancel by pressing any key.
$	Help Basic command summary.
&$	Help Ampersand command summary.
%$	Help Percent command summary.
D$	Help Dial command summary.
S$	Help S-register summary.

EXTENDED COMMAND SET

Command	Function/Options
&A*n*	ARQ result codes. &A0 Suppress ARQ result codes &A1 Display ARQ result codes—Default &A2 Display HST and V.32 result codes &A3 Display protocol result codes
&B*n*	Data Rate, terminal-to-modem (DTE/DCE). &B0 DTE rate follows connection rate—Default &B1 Fixed DTE rate &B2 Fixed DTE rate in ARQ mode; variable DTE rate in non-ARQ mode
&C*n*	Carrier Detect (CD) operations. See DIP switch 6. &C0 CD override &C1 Normal CD operations
&D*n*	Data Terminal Ready (DTR) operations. See DIP switch 1. &D0 DTR override

EXTENDED COMMAND SET

Command	Function/Options
	&D1 Online command mode with DTR toggle &D2 Normal DTR operations
&F	Load factory settings into random access memory (RAM).
&G*n*	Guard tone. &G0 No guard tone, U.S., Canada—Default &G1 Guard tone, some European countries &G2 Guard tone, U.K.; requires B0
&H*n*	Transmit Data flow control. &H0 Flow control disabled—Default &H1 Hardware (CTS) flow control &H2 Software (XON/XOFF) flow control &H3 Hardware and software control
&I*n*	Received Data software flow control. &I0 Flow control disabled—Default &I1 XON/XOFF to local modem and remote computer &I2 XON/XOFF to local modem only; ARQ mode only &I3 ARQ Host mode, Hewlett Packard protocol &I4 ARQ Terminal mode, Hewlett Packard protocol &I5 ARQ mode—same as &I2; non-ARQ mode—look for incoming XON/XOFF
&K*n*	Data compression. &K0 Disabled &K1 Auto enable/disable—Default &K2 Enabled &K3 V.42 *bis* only
&L*n*	Normal/Leased line operation. &L0 Normal phone line—Default &L1 Leased line
&M*n*	Error Control /Synchronous Options. &M0 Normal mode, no error control &M1 Reserved &M2 Reserved &M3 Reserved &M4 Normal/ARQ mode—Normal if ARQ connection cannot be made—Default &M5 ARQ mode—hang up if ARQ connection cannot be made
&N*n*	Data Rate, data link (DCE/DCE). &N0 Normal link operations—Default &N1 300 bps &N2 1200 bps &N3 2400 bps &N4 4800 bps &N5 7200 bps &N6 9600 bps &N7 12K bps &N8 14.4K bps &N9 16.8K bps (HST only)
&P*n*	Pulse dial make/break ratio. &P0 North America—Default &P1 British Commonwealth
&R*n*	Received Data hardware (RTS) flow control. &R0 Delay before CTS after RTS; see S26 &R1 Ignore RTS—Default &R2 Pass received data on RTS high; used only if terminal equipment supports RTS

EXTENDED COMMAND SET

Command	Function/Options
&S*n*	Data Set Ready (DSR) override. &S0 DSR override (always ON—Default) &S1 Modem controls DSR &S2 Pulsed DSR; CTS follows CD &S3 Pulsed DSR
&T*n*	Modem Testing. &T0 End testing, see Register S18 &T1 Analog Loopback &T2 Reserved &T3 Digital Loopback &T4 Grant Remote Digital Loopback &T5 Deny Remote Digital Loopback &T6 Initiate Remote Digital Loopback &T7 Remote Digital Loopback with self test &T8 Analog Loopback with self test
&W	Write current settings to NVRAM.
&X*n*	Synchronous timing source. &X0 Modem's Transmit clock—Default &X1 Terminal equipment &X2 Modem's Receiver clock
&Y*n*	Break handling. Destructive Breaks clear the buffer; expedited Breaks are sent immediately to the remote system. &Y0 Destructive, but don't send Break &Y1 Destructive, expedited—Default &Y2 Nondestructive, expedited &Y3 Nondestructive, unexpedited
&Z*n*=*L*	Store last-dialed phone number in NVRAM at position *n*.
&Z*n*=*s*	Write phone number (*s*) to NVRAM at position *n* (0–3). 36 characters maximum.
&Z*n*?	Display phone number stored in NVRAM at position *n* (*n*=0–3).
&ZC=*s*	Write command string (*s*) to NVRAM.
&ZC?	Display stored command string.
%B*n*	Configure the Courier's serial port rate. %B0 110 bps %B1 300 bps %B2 600 bps %B3 1200 bps %B4 2400 bps %B5 4800 bps %B6 9600 bps %B7 19.2K bps %B8 38.4K bps %B9 57.6K bps
%C*n*	Configuration control. %C0 Defer configuration until call is ended—Default %C1 Restore original configuration %C2 Execute configuration immediately
%F*n*	Configure data format. %F0 No parity, 8 data bits %F1 Mark parity, 7 data bits %F2 Odd parity, 7 data bits %F3 Even parity, 7 data bits
%P*n*=*s*	Set the following password string (*s*) at position *n* (*n*= 0 or 1).
%P*n*?	Display the password stored at position *n* (*n*= 0 or 1).
%R*n*	Remote access to Rack Controller Unit (RCU). %R0 Disabled %R1 Enabled
%T	Enable Touch-Tone recognition.