



5000 Bradford Drive
Huntsville, Alabama 35805-1953
Telephone (205) 721-8000

P/N 1106 REV D

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S REGISTERS-FUNCTIONS

REGISTER

Sn? Read value in register n

Sn = v Set value v in register n

S0	Ring to answer	(0 = autoanswer off)
S1	Ring count	
S2	Escape sequence char.	43 (" + ")
S3	End-of-line character	13 (CR)
S4	Line feed character	10 (LF)
S5	Backspace character	8 (BS)
S6	Pause before dialing	2 sec
S7	Pause for carrier	30 sec
S8	Pause for comma	2 sec
S9	Carrier validation	6 (0.6 sec)
S10	Loss-of-carrier disconnect delay	14 (1.4 sec)
S11	Duration of Tone in DTMF Dialing	95 (0.095 sec)
S12	Escape sequence pause	50 (1 sec)
S18	Test timer	0
S25	DTR detect delay	5
	-async/sync mode, &M1	(5 sec)
	-asynchronous mode, &M0	(0.05 sec)
	sync autodial, &M2	
	sync manual dial &M3	
S26	RTS-to-CTS delay	10 ms
S14	Bit mapped	AA hex
S16	Bit mapped	00 hex
S21	Bit mapped	20 hex
S22	Bit mapped	76 hex
S23	Bit mapped	07 hex
S27	Bit mapped	40 hex

RESPONSE MESSAGES

DIGIT CODES	WORD CODES	MEANINGS
0	OK	Command received.
1	CONNECT	Connection made at 0-300; or connection made at 0-300, 600, 1200, or 2400 (while X0 command in effect).

2	RING	Incoming ring detected.
3	NO CARRIER	Valid carrier not detected within period specified by register S7 or carrier lost.
4	ERROR	Command not recognized or too long (more than 40 characters).
5	CONNECT 1200	Connection made at 1200 bps.
6	NO DIAL TONE	No dial tone detected for 30 secs or period specified by register S7 (while W command and X0, X1, or X3 command in effect) No dial tone detected for 5 secs (X2 or X4 command in effect).
7	BUSY	Dialed number busy (X3 or X4 command in effect).
8	NO ANSWER	5 sec of silence not detected (dial modifier @ in effect).
9	CONNECT 0600	Connection made at 600 bps.
10	CONNECT 2400	Connection made at 2400 bps.

SPECIFICATIONS SUMMARY

DATA FORMAT: Serial, binary, asynchronous; 7 or 8 data bits; 1 or 2 stop bits; odd, even, mark, or no parity.

DIALING CAPABILITY: Touch-Tone® and rotary dial pulse dialing.

COMMAND BUFFER: 40 characters.

AUDIO MONITOR: Two inch speaker with volume control.

REAR PANEL: On/Off switch, power jack, EIA-232C connector, two modular telephone jack connectors.

OPERATION: 2-wire full-duplex.

DATA RATE: 0-300 bps, 600 bps, 1200 bps, 2400 bps.

INTERFACE: EIA-232C.

MODEM COMPATIBILITY: Bell System 103/212 or CCITT V.22/V.22 bis compatibility in originate or answer mode.

RECEIVE SENSITIVITY: -44 dBm.

TRANSMIT LEVEL: -9 dBm.

POWER PACK: UL listed 120 Vac, 60 Hz, 9.0 Vac output.

SIZE: 1.25" x 6" x 9.5".

FCC registered for direct connection to the nationwide telephone system.

Touch-Tone® is a trademark of American Telephone and Telegraph.

ASCII CHARACTER TABLE

DECIMAL	HEXADECIMAL	CHARACTER	DECIMAL	HEXADECIMAL	CHARACTER
0	00	NUL	64	40	@
1	01	SOH	65	41	A
2	02	STX	66	42	B
3	03	ETX	67	43	C
4	04	EOT	68	44	D
5	05	ENQ	69	45	E
6	06	ACK	70	46	F
7	07	BEL	71	47	G
8	08	BS	72	48	H
9	09	HT	73	49	I
10	0A	LF	74	4A	J
11	0B	VT	75	4B	K
12	0C	FF	76	4C	L
13	0D	CR	77	4D	M
14	0E	SO	78	4E	N
15	0F	SI	79	4F	O
16	10	DLE	80	50	P
17	11	DC1	81	51	Q
18	12	DC2	82	52	R
19	13	DC3	83	53	S
20	14	DC4	84	54	T
21	15	NAK	85	55	U
22	16	SYN	86	56	V
23	17	ETB	87	57	W
24	18	CAN	88	58	X
25	19	EM	89	59	Y
26	1A	SUB	90	5A	Z
27	1B	ESC	91	5B	[
28	1C	FS	92	5C	\
29	1D	GS	93	5D]
30	1E	RS	94	5E	<
31	1F	US	95	5F	/
32	20	SP	96	60	
33	21	!	97	61	a
34	22	"	98	62	b
35	23	#	99	63	c
36	24	\$	100	64	d
37	25	%	101	65	e
38	26	&	102	66	f
39	27	/	103	67	g
40	28	(104	68	h
41	29)	105	69	i
42	2A	*	106	6A	j
43	2B	+	107	6B	k
44	2C	,	108	6C	l
45	2D	-	109	6D	m
46	2E	.	110	6E	n
47	2F	/	111	6F	o
48	30	0	112	70	p
49	31	1	113	71	q
50	32	2	114	72	r
51	33	3	115	73	s
52	34	4	116	74	t
53	35	5	117	75	u
54	36	6	118	76	v
55	37	7	119	77	w
56	38	8	120	78	x
57	39	9	121	79	y
58	3A	:	122	7A	z
59	3B	;	123	7B	[
60	3C	<	124	7C]
61	3D	=	125	7D	^
62	3E	>	126	7E	_
63	3F	?	127	7F	DEL

UNIVERSAL DATA SYSTEMS FASTALK 2400 II QUICK REFERENCE CARD

COMMANDS

COMMAND	DESCRIPTION
AT	Attention code - command prefix
A/	Repeat last command
+ + +	Escape sequence (pause, + + +, pause)
A	Answer
B	CCITT V.22 at 1200 bps
B1	Bell 212A at 1200 bps *
D	Dial
T	Tone dial
P	Pulse dial *
,	Pause (2 sec or S8 value)
W	Wait for 2nd dial tone (S6 value)
!	Flash the exchange (0.5 sec on hook)
R	Switch to answer mode after dialing
@	Wait for 5 sec silence
;	Return to command mode after dialing
S	Dial stored command line
E	Local character echo off
E1	Local character echo on *
H	Hang up
H1	Operate switch-hook (and aux. relay if &J1)
I	Modem identification code
I1	Checksum
I2	Internal memory check
L	Low volume
L1	Low volume
L2	Medium volume *
L3	High volume
M	Speaker always off
M1	Speaker on until carrier detected *
M2	Speaker always on
M3	Speaker off while modem is dialing
O	Go online (after escape)
O1	Go online and initiate a retrain
O2	Go online and change speed
Q	Response displays on *
Q1	Response displays off
P	Set Pulse dial mode*
T	Set Tone dial mode
R	Set Reverse to answer mode
V	Response codes
V1	Response messages *

X	CONNECT all speeds, no dial tone detection
X1	CONNECT 0-300 bps, CONNECT 1200, 1200 bps or CONNECT 2400, 2400 bps, no dial tone detection
X2	Wait for dial tone (CONNECT speeds shown as for X1)
X3	Detect busy signal (CONNECT speeds shown as for X1)
X4	Wait for dial tone, detect busy signal (CONNECT speeds shown as for X1) *
Y	Long space disconnect disabled *
Y1	Long space disconnect enabled
Z	Reset to stored profile 0
Z1	Reset to stored profile 1
&F	Restore factory configuration
&G	No guard tone *
&G1	550 Hz tone
&G2	1800 Hz tone
&J	RJ11/RJ41S/RJ45 jack *
&J1	RJ12/RJ13 jack
&L	Dial-up phone line *
&L1	Leased line
&M	Asynchronous operation *
&M1	Async/sync operation
&M2	Sync autodial
&M3	Sync manual dial
&P	39/61 pulse make/break ratio *
&P1	33/67 pulse make/break ratio
&V	View configuration profiles
&W	Store configuration to profile 0
&W1	Store configuration to profile 1
&X	Sync clock - internal *
&X1	Sync clock - external
&X2	Sync clock - slaved
&Y	Powerup to profile 0
&Y1	Powerup to profile 1
&Zn =	Store dial command line
&C	DCD always on *
&C1	DCD on while carrier present
&D	DTR ignored *
&D1	On a DTR drop - return to command mode without disconnecting
&D2	On a DTR drop - disconnect and return to command mode, disable autoanswer until DTR true
&D3	On a DTR drop - disconnect and reinitialize modem
&R	CTS follows RTS (by S26 delay) *
&R1	CTS always on
&S	DSR always on *
&S1	DSR normal operation

&T	Terminate current test
&T1	Analog loop
&T3	Digital loop
&T4	Grant RDL request
&T5	Deny RDL request
&T6	Remote digital loop
&T7	Self test RDL
&T8	Self test analog loop
S0 = 0	Autoanswer off *
S0 = n	Autoanswer on ring 'n' if switch in DATA (and DTR on if &D2 active)
S18 = n	Set test timer to 'n' sec.
*	factory default

FRONT PANEL INDICATORS

TR (Terminal Ready)	On with data terminal ready (DTR, EIA-232C pin 20)
MR (Modem Ready)	On when power switch is in the ON position
SD (Send Data)	On when transmitting data
RD (Receive Data)	On when receiving data
HS (High Speed)	On when stored speed is 2400 bps or if connected in 2400 bps data mode
CD (Carrier Detect)	On when carrier detected
OH (Off Hook)	On when modem using phone line

EIA-232C CONNECTOR PIN ASSIGNMENTS

PIN NUMBER	DESCRIPTION	DIRECTION
1	Protective Ground	NA
2	Transmit Data	To FASTALK 2400 II
3	Receive Data	From FASTALK 2400 II
5	Clear to Send	From FASTALK 2400 II
6	Data Set Ready	From FASTALK 2400 II
7	Signal Ground (Common Return)	NA
8	Carrier Detect	From FASTALK 2400 II
12	High Speed Indicator	From FASTALK 2400 II
20	Data Terminal Ready	To FASTALK 2400 II
22	Ring Indicator	From FASTALK 2400 II