

DUMB MODE OF OPERATION

On the back of the modem, there is a two-pin jumper located next to the DB-25 connector. When the two pins on that jumper are connected together, the modem will then operate in dumb mode. In this mode, the modem will operate as though it has no command mode. The dumb mode of operation is necessary for a range of special dial applications where the DTE expects the modem to have no command mode or where streaming data from the DTE would cause call establishment to abort.

To place the modem in dumb mode first configure the modem to the specific requirements. It is recommended that this configuration string include S2=127. Next, the configuration must be saved. Once the configuration has been saved, install the dumb mode jumper and then cycle power on the modem. It will then be in dumb mode. If it becomes necessary to reconfigure the modem, remove the dumb mode jumper and cycle power on the modem.

CERTIFICATIONS

FCC Part 68

This equipment complies with U.S. Code of Federal Regulations, Title 47, FCC Rules and Regulations Part 68. Located on the equipment is the FCC Registration Number and Ringer Equivalence Number (REN). You must provide this information to the telephone company if requested.

The Registration Number and REN will be on a label attached to the unit. The FCC requires these numbers be prominently displayed on an outside surface of the equipment.

The REN is used to determine the number of devices you may legally connect to your telephone line. In most areas, the sum of the REN of all devices connected to one line must not exceed five (5.0). You should contact your telephone company to determine the maximum REN for your calling area. The telephone company may change technical operations or procedures affecting your equipment. You will be notified of changes in advance to give you ample time to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact Ctek Inc. at 775-284-3700 Ext 1814 for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been resolved. If your equipment continues to disrupt the network, the telephone company may temporarily disconnect service. If this occurs you will be informed of your right to file a complaint with the FCC.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

FCC Part 15

This equipment has been tested and complies with the limits for a Class A computing device according to U.S. Code of Federal Regulations, Title 47, FCC Rules and Regulations Part 15. Operation is subject to the following two conditions:

- (1) This device may cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Series 2000 Quick Reference Guide

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Part Number 91-004-01

This manual covers configuration and operation of all Series 2000 modems. A detailed manual on these products is available from Ctek, Inc. (www.ctekproducts.com).

FRONT PANEL LIGHTS

Indicator Label	Function	Indicator Label	Function	Indicator	Function
MR	Modem	OH	Off Hook	TX	Transmit
AA	Auto Answer	CD	Carrier	RX	Receive

BACK PANEL CONNECTORS

LINE - This RJ-11 connector should be used to connect the modem to a normal PSTN dial circuit or a dedicated 2-wire leased circuit.

RS-232-C - This DB9 connector provides a standard RS-232-C (V.24) interface between the modem and a wide range of DTE. The following signals are provided.

Pin	Signal	Source	PIN	Signal	Source
1	Carrier Detect	DCE (CD)	6	Data Set Ready	DCE (MR)
2	Receive Data	DCE (RX)	7	Request To Send	DTE
3	Transmit Data	DTE (TX)	8	Clear To Send	DCE
4	Data Terminal Ready	DTE	9	Ring Indicator	DCE
5	Ground	DTE/DCE			

DUMB MODE - Next to the RS-232-C DB9 connector is a two-pin header. When the pins of this connector are not connected (default), the modem operates in smart mode. When they are connected, the modem operates in dumb mode. For more detail, please refer to the dumb mode section of this manual.

POWER - This connector is present on all models and accepts a 14–54VDC power source. The center contact of the barrel connector is positive and the outside connector is ground. On rack mount versions, a different power connector is used and it provides DC voltages to the modem from the rack back plane.

Caution: Before operating any Series 2000 security modem internal battery backup should be enabled to preserve user settings in the event of a power outage. To enable the battery connect jumper JP2 pins 1 -> 2. To locate JP2 turn the modem upside down with the DB9 connector facing left. JP2 will then be in the lower right hand corner underneath the mounting bracket.

AT COMMAND SET

Series 2000 modems are easily configured with a terminal emulation program such as HyperTerminal or an equivalent. Remote configuration command mode is invoked with a tilde '~' escape sequence (~~~) and exited with the AT command Enter Online Data Mode ATO0 or ATO1. Local configuration command mode is entered with a sequence of escape character set in S Register S2. The default for S2 is the plus '+' character.

This section defines the commands that may be entered while in command state.

Attention Code – Command lines must begin with the characters AT and must end with a carriage return (CR). The modem will not execute the command until it receives CR.

Backspace Key – Will erase the previous character in the command buffer but will not erase the beginning AT.

Missing Parameters – Missing parameters are interpreted as 0.

Result Codes – Result codes are responses by the modem to commands. Result codes may be text (words) or digits.

Answer	ATA	Go off-hook and attempt to answer an incoming call
Dial	Dn	Dial a phone number.
Command Echo	E0 E1	Disable command echo Enable command echo
Hang-Up	H	This command initiates a hang up sequence
Identification	I3	Display firmware release
Return to online data mode	O	This command determines how the modem will enter the on-line data mode
Set Pulse Dial Default	P	This command forces pulse dialing until the next T dial modifier or T command is received
Quiet Results Codes Control	Q0 Q1	Enable result codes Disable result codes
Read/Write S-Register	Sn=v Sn?	The modem selects an S-Register and performs a read or write function, or reports the value of an S-Register.
Set Tone Dial	T	This command forces DTMF dialing.
Connect Message Control	W0 W1 W2	Reports DTE speed Reports line speed, error correction, protocol, DTE speed Reports DCE speed
Extended Result Codes	X0 X1 X2 X3 X4	This command selects which subset of the result messages will be used by the modem to inform the DTE of the results of commands. See manual for details.
Soft Reset and Restore Profile	Z0 Z1	Restore Profile 0 Restore Profile 1
RLSD (DCD) Option	&C0 &C1	DCD always on DCD follows carrier state of modem
DTR Option	&D0 &D1 &D2 &D3	Assumed on Go to command mode on DTR drop Hang up on DTR drop Soft Reset on DTR drop
Restore Factory Configuration	&F0 &F1	Factory default 0 Factory default 1
Flow Control	&K0 &K3 &K4 &K5 &K6	Disabled RTS/CTS XON/XOFF Transparent XON/XOFF RTS/CTS and XON/XOFF
Display Current Configuration and Stored Profiles	&V	Reports the current (active) configuration, the stored (user) profiles, and the first four stored telephone numbers.
Store Current Configuration	&W0 &W1	Store as profile 0 Store as profile 1
Designate a Default Profile	&Y0 &Y1	Profile 0 Profile 1
Select DTE Character Format	\C0 \C1 \C2	8 Data bits, No parity, 1 Stop bit 7 Data bits, Odd parity, 1 Stop bit 7 Data bits, Even parity, 1 Stop bit

Select DTE Data	\D0	Autobaud
	\D1	300 bps
	\D2	1200 bps
	\D3	2400 bps
	\D4	4800 bps
	\D5	9600 bps
	\D6	19.2 kbps
	\D7	38.4 kbps
	\D8	57.6 kbps
\D9	115.2 kbps	
Enable/Disable Remote Configuration	\R0	Remote configuration disabled
	\R1	Remote configuration enabled

Erase audit trail	\E	
Output audit trail	\O	
Add caller ID	\I+ccccccccc,l (ccccccccc = caller ID, l = level 1 – 4)	
Delete a caller ID	\I-ccccccccc	
Delete all caller IDs	\I-*	
Display caller IDs	\I?	
Add user ID	\P+uuuuuuuuu,ppppppppp,l,ddddddddd (uuuuuuuuu = User ID, ppppppppp = Password, l = level 1 – 4, dddddddddd = callback number)	
Delete UID	\P-uuuuuuuuu	
Delete all UIDs	\P-*	
Display user IDs	\P?	
Enable/Disable Security	\S0	Password off, Caller ID off
	\S1	Password on, Prompt off, Caller ID off
	\S2	Password on, Prompt on, Caller ID off
	\S3	Password off, Caller ID on, Log all caller IDs
	\S4	Password on, Prompt off, Caller ID on, Log all caller IDs
	\S5	Password on, Prompt on, Caller ID on, Log all caller IDs
	\S6	Password off, Caller ID on, Log registered caller IDs
	\S7	Password on, Prompt off, Caller ID on, Log registered caller IDs
\S8	Password on, Prompt on, Caller ID on, Log registered caller IDs	
Set date/time	\T=mm/dd/yy hh:mm (time must be in 24 hour format)	
Display date/time	\T?	
Set password expiration windows	\W=nn (nn defines a month 1 – 12 and up to 12 months may be specified. At the beginning of each month defined, new passwords will be required for each registered user ID.)	
Set modulation	+MS = modulation,automode,min rate,max rate (see manual for detail)	
Display modulation	+ms?	