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**A Complete Line of
 Serial Communication Interface
 and Control Equipment from B&B**

DECIMAL TO HEX TO ASCII CONVERTER

DEC	HEX	ASCII	KEY	DEC	HEX	ASCII	KEY	DEC	HEX	ASCII	KEY	DEC	HEX	ASCII	KEY
0	00	NUL	ctrl @	32	20	SP		64	40	@		96	60	'	
1	01	SOH	ctrl A	33	21	!		65	41	A		97	61	a	
2	02	STX	ctrl B	34	22	"		66	42	B		98	62	b	
3	03	ETX	ctrl C	35	23	#		67	43	C		99	63	c	
4	04	EOT	ctrl D	36	24	\$		68	44	D		100	64	d	
5	05	ENO	ctrl E	37	25	%		69	45	E		101	65	e	
6	06	ACK	ctrl F	38	26	&		70	46	F		102	66	f	
7	07	BEL	ctrl G	39	27	'		71	47	G		103	67	g	
8	08	BS	ctrl H	40	28	(		72	48	H		104	68	h	
9	09	HT	ctrl I	41	29	)		73	49	I		105	69	i	
10	0A	LF	ctrl J	42	2A	^		74	4A	J		106	6A	j	
11	0B	VT	ctrl K	43	2B	+		75	4B	K		107	6B	k	
12	0C	FF	ctrl L	44	2C	,		76	4C	L		108	6C	l	
13	0D	CR	ctrl M	45	2D	-		77	4D	M		109	6D	m	
14	0E	SO	ctrl N	46	2E	.		78	4E	N		110	6E	n	
15	0F	SI	ctrl O	47	2F	/		79	4F	O		111	6F	o	
16	10	DLE	ctrl P	48	30	0		80	50	P		112	70	p	
17	11	DC1	ctrl Q	49	31	1		81	51	Q		113	71	q	
18	12	DC2	ctrl R	50	32	2		82	52	R		114	72	r	
19	13	DC3	ctrl S	51	33	3		83	53	S		115	73	s	
20	14	DC4	ctrl T	52	34	4		84	54	T		116	74	t	
21	15	NAK	ctrl U	53	35	5		85	55	U		117	75	u	
22	16	SYN	ctrl V	54	36	6		86	56	V		118	76	v	
23	17	ETB	ctrl W	55	37	7		87	57	W		119	77	w	
24	18	CAN	ctrl X	56	38	8		88	58	X		120	78	x	
25	19	EM	ctrl Y	57	39	9		89	59	Y		121	79	y	
26	1A	SUB	ctrl Z	58	3A	:		90	5A	Z		122	7A	z	
27	1B	ESC	ctrl [	59	3B	;		91	5B	[		123	7B	{	
28	1C	FS	ctrl \	60	3C	<		92	5C	\		124	7C	|	
29	1D	GS	ctrl]	61	3D	=		93	5D	]		125	7D	}	
30	1E	RS	ctrl ^	62	3E	>		94	5E	^		126	7E	~	
31	1F	US	ctrl _	63	3F	?		95	5F	_		127	7F	DEL	

EIA-232-E (RS-232) Function	PIN # DB-25	PIN # DB-9	EIA-530 Function	PIN # DB-25	TO DTE	TO DCE
Shield	1		Shield	1		
Transmit Data (TD)	2	3	Transmit Data (A) (B)	2 14		>
Receive Data (RD)	3	2	Receive Data (A) (B)	3 16	<	
Request To Send (RTS)	4	7	Request To Send (A) (B)	4 19		>
Clear To Send (CTS)	5	8	Clear To Send (A) (B)	5 13	<	
DCE Ready (DSR)	6	6	DCE Ready (A) (B)	6 22	<	
Signal Ground (SG)	7	5	Signal Ground (A)	7		
Received Line Signal Detector (DCD)	8	1	Received Line Signal Detector (A) (B)	8 10	<	
DTE Ready (DTR)	20	4	DTE Ready (A) (B)	20 23		>
Ring Indicator	22	9	N/A			---

Common AT Port Addresses and Interrupts		
COM1	3F8h	IRQ4
COM2	2F8h	IRQ3
COM3	3E8h	IRQ4
COM4	2E8h	IRQ3
LPT1	378h	IRQ7
LPT2	278h	IRQ5
LPT3	3BCh	
Floppy Disk		IRQ6
Real Time Clock		IRQ8
Re-directed to IRQ2		IRQ9
Math Co-processor		IRQ13
Hard Disk		IRQ14

SIGNAL STATE	THRESHOLD VOLTAGES		
	Signal with Respect to SG	Signal A with Respect to Signal B	Signal A with Respect to Signal B
	RS-232	RS-422	RS-485
"0", Asserted, ON, Space, Active	+3 to +25 VDC	+2 to +6 VDC (Transmitter) +0.2 to +7 VDC (Receiver)	+1.5 to +6 VDC (Transmitter) +0.2 to +12 VDC (Receiver)
"1", Disasserted, OFF, Mark, Inactive	-3 to -25 VDC	-2 to -6 VDC (Transmitter) -0.2 to -7 VDC (Receiver)	-1.5 to -6 VDC (Transmitter) -0.2 to -7 VDC (Receiver)

NOTE: Some RS-422 and RS-485 equipment use "+" and "-" descriptors.
 The "-" corresponds to "A" and the "+" corresponds to "B".

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PROBLEMS