Decimal to Octal to Hex to ASCII Conversion

	ANSI MODE	HEATH/ZENITH MODE
TO ENTER GRAPHICS MODE	ESC [10 m	ESC F
TO EXIT GRAPHICS MODE	ESC [11 m	ESC G

Dec	Oct	Hex	ASCII	Dec	Oct	Hex	ASCII	Alter Char	Dec	Oct	Hex	ASCII	Graphic Sym	Alter Char	Alter Graphic Sym	Dec	Oct	Hex	ASCII	Graphic Sym	Alter Char	Alter Graphic Sym
0	000	00	NUL	32	040	20	SP		64	100	40	@				96	140	60	`			
1	001	01	SOH	33	041	21	!		65	101	41	A				97	141	61	a			
2	002	02	STX	34	042	22	"		66	102	42	B				98	142	62	b			
3	003	03	ETX	35	043	23	#		67	103	43	C				99	143	63	c			
4	004	04	EOT	36	044	24	$		68	104	44	D				100	144	64	d			
5	005	05	ENQ	37	045	25	%		69	105	45	E				101	145	65	e			
6	006	06	ACK	38	046	26	&		70	106	46	F				102	146	66	f			
7	007	07	BEL	39	047	27	'		71	107	47	G				103	147	67	g			
8	010	08	BS	40	050	28	(		72	110	48	H				104	150	68	h			
9	011	09	HT	41	051	29	)		73	111	49	I				105	151	69	i			
10	012	0A	LF	42	052	2A	*		74	112	4A	J				106	152	6A	j			
11	013	0B	VT	43	053	2B	+		75	113	4B	K				107	153	6B	k			
12	014	0C	FF	44	054	2C	,		76	114	4C	L				108	154	6C	l			
13	015	0D	CR	45	055	2D	-		77	115	4D	M				109	155	6D	m			
14	016	0E	SO	46	056	2E	.		78	116	4E	N				110	156	6E	n			
15	017	0F	SI	47	057	2F	/		79	117	4F	O				111	157	6F	o			
16	020	10	DLE	48	060	30	0		80	120	50	P				112	160	70	p			
17	021	11	DC1	49	061	31	1		81	121	51	Q				113	161	71	q			
18	022	12	DC2	50	062	32	2		82	122	52	R				114	162	72	r			
19	023	13	DC3	51	063	33	3		83	123	53	S				115	163	73	s			
20	024	14	DC4	52	064	34	4		84	124	54	T				116	164	74	t			
21	025	15	NAK	53	065	35	5		85	125	55	U				117	165	75	u			
22	026	16	SYN	54	066	36	6		86	126	56	V				118	166	76	v			
23	027	17	ETB	55	067	37	7		87	127	57	W				119	167	77	w			
24	030	18	CAN	56	070	38	8		88	130	58	X				120	170	78	x			
25	031	19	EM	57	071	39	9		89	131	59	Y				121	171	79	y			
26	032	1A	SUB	58	072	3A	:		90	132	5A	Z				122	172	7A	z			
27	033	1B	ESC	59	073	3B	;		91	133	5B	[				123	173	7B	{			
28	034	1C	FS	60	074	3C	<		92	134	5C	\				124	174	7C	|			
29	035	1D	GS	61	075	3D	=		93	135	5D	]				125	175	7D	}			
30	036	1E	RS	62	076	3E	>		94	136	5E	^				126	176	7E	~			
31	037	1F	US	63	077	3F	?		95	137	5F	_				127	177	7F	DEL			

Zenith/Heath Mode	Ansi Mode	Description
Control Characters		
0 Decimal	00 Hex	NUL – Null
7 Decimal	07 Hex	BEL – Bell
8 Decimal	08 Hex	BS – Backspace
9 Decimal	09 Hex	HT – Horizontal tab (same as VT52)
10 Decimal	0A Hex	LF – Line feed
13 Decimal	0D Hex	CR – Carriage return
14 Decimal	0E Hex	SO – Shift out
15 Decimal	0F Hex	SI – Shift in
17 Decimal	11 Hex	DC1 – XON
19 Decimal	13 Hex	DC3 – XOFF
24 Decimal	18 Hex	CAN – Cancel current control sequence
27 Decimal	1B Hex	ESC – Escape
Cursor Functions		
ESC A	ESC [Pn A	Cursor up
ESC B	ESC [Pn B	Cursor down
ESC C	ESC [Pn C	Cursor forward
ESC D	ESC [Pn D	Cursor backward
ESC H	ESC [H	Cursor home
	ESC D	Index
ESC I	ESC M	Reverse index
ESC Y	ESC [Pl;Pc H	Direct cursor addressing
	or ESC [Pl;Pc f	(same as VT52)
ESC j	ESC [s	Save cursor position
ESC k	ESC [u	Set cursor to previously saved position
ESC n	ESC [6 n	Cursor position report
ESC -	ESC [Pn Z	Cursor backward tabulation
Erasing and Editing		
ESC E	ESC [2 J	Clear display (SHIFT ERASE)
ESC b	ESC [1 J	Erase beginning of display
ESC J	ESC [J	Erase to end of display (ERASE key)
ESC 1	ESC [2 K	Erase entire line
ESC o	ESC [1 K	Erase beginning of line
ESC K	ESC [K	Erase to end of line
ESC L	ESC [Pn L	Insert line
ESC M	ESC [Pn M	Delete line
	ESC [Pn @	Insert character
ESC N	ESC [Pn P	Delete character
ESC @	ESC [4 h	Enter insert character mode
ESC O	ESC [4 l	Exit insert character mode
ESC . 0	ESC [0 g	Clear tab stop at cursor position
ESC . 3	ESC [3 g	Clear tab stop positions
ESC . 8	ESC H	Set tab stop at cursor position
Modes of Operation		
ESC <		Enter ANSI mode of operation
	ESC [? 2 h	Enter ZDS mode of operation
ESC F	ESC [10 m	Enter graphics mode
ESC G	ESC [11 m	Exit graphics mode
ESC =	ESC =	Enter alternate keypad mode
ESC >	ESC >	Exit alternate keypad mode
ESC [	ESC [> 3 h	Enter hold screen mode
ESC \	ESC [> 3 l	Exit hold screen mode
ESC s		Set attribute
	ESC [2 m	Enter half intensity mode
	ESC [4 m	Enter underline mode
	ESC [5 m	Enter blinking mode
ESC p	ESC [7 m	Enter reverse video mode
	ESC [m	Exit all attribute modes
ESC q		Exit reverse video mode
	ESC [0 }	No fields are protected
	ESC [2 }	Half intensity implies protection
	ESC [4 }	Underline implies protection
	ESC [5 }	Blinking implies protection
	ESC [7 }	Reverse video implies protection
	ESC [254 }	No attribute implies protection
ESC t	ESC [> 6 h	Enter keypad shifted mode
ESC u	ESC [> 6 l	Exit keypad shifted mode
	ESC (B	G0 designated as United States set
	ESC (0	G0 designated as graphic set
	ESC (1	G0 designated as alternate char set
	ESC (2	G0 designated as alt char graphic set
	ESC) B	G1 designated as United States set
	ESC) 0	G1 designated as graphic set
	ESC) 1	G1 designated as alternate char set
	ESC) 2	G1 designated as alt char graphic set
	ESC [1 h	Set GATM (transmit all data)
	ESC [1 l	Reset GATM (transmit only unprotected data)
ESC }	ESC [2 h	Disable keyboard input
ESC {	ESC [2 l	Enable keyboard input
	ESC [6 h	Set ERM (erase all data)
	ESC [6 l	Reset ERM (erase only unprotected data)
	ESC [20 h	Set LNM (auto CR on receipt of LF)
	ESC [20 l	Reset LNM (no auto CR on receipt of LF)
ESC v	ESC [? 7 h	Wrap-around at end of line
ESC w	ESC [? 7 l	Discard at end of line
Additional Functions		
ESC #	ESC [p	Transmit page
ESC ^	ESC [1 p	Transmit current line
ESC _	ESC [2 p	Transmit character at cursor
ESC]	ESC [3 p	Transmit 25th line
ESC	ESC # 7	Transmit page to printer
	ESC [Pt;Pb r	Define scrolling region (top;bottom)
	ESC [Pn v	Set blinking rate (in 1/30 of second)
	ESC [Ph;Pm;Ps {	Program clock (hours;minutes;seconds)
ESC z	ESC c	Reset to power-up configuration
	or ESC [z	
ESC i 0		Request terminal type (ESC i B 0)
ESC Z		Identify as VT52 (ESC / K)

Zenith/Heath Mode	Ansi Mode	Description
Configuration		
ESC r Bn	ESC [Pn w	Modify baud rate
Bn = @	Pn = 0	75 baud
A	1	110 baud
B	2	150 baud
C	3	300 baud
D	4	600 baud
E	5	1200 baud
F	6	1800 baud
H	8	2400 baud
J	10	4800 baud
L	12	9600 baud
M	13	19200 baud
ESC x Ps	ESC [> Ps h	Set modes
	Ps = 1	Enable 25th line
	2	No key click
	3	Enter hold screen mode
	4	Block cursor
	5	Cursor off
	6	Keypad shifted
	7	Enter alternate keypad mode
	8	Auto line feed on receipt of CR
	9	Auto carriage return on receipt of LF
ESC y Ps	ESC [> Ps l	Set modes
	Ps = 1	Disable 25th line
	2	Enable key click
	3	Exit hold screen mode
	4	Underscore cursor
	5	Cursor on
	6	Keypad unshifted
	7	Exit alternate keypad mode
	8	No auto line feed
	9	No auto carriage return

Function Keys Sequence		
ESC S	ESC O S	F1 function key
ESC T	ESC O T	F2 function key
ESC U	ESC O U	F3 function key
ESC V	ESC O V	F4 function key
ESC W	ESC O W	F5 function key
ESC P	ESC O P	F6 function key (Z-19 BLUE key)
ESC Q	ESC O Q	F7 function key (Z-19 RED key)
ESC R	ESC O R	F8 function key (Z-19 GRAY key)
ESC 0 I	ESC O X	F9 function key
ESC ´	ESC [´	HELP function key

Alternate Keypad Sequence		
ESC ? M	ESC O M	"Enter" key
ESC ? l	ESC O l	"," (comma) key
ESC ? m	ESC O m	"-" (minus) key
ESC ? n	ESC O n	"." (period) key
ESC ? p	ESC O p	"0" key
ESC ? q	ESC O q	"1" key
ESC ? r	ESC O r	"2" key
ESC ? s	ESC O s	"3" key
ESC ? t	ESC O t	"4" key
ESC ? u	ESC O u	"5" key
ESC ? v	ESC O v	"6" key
ESC ? w	ESC O w	"7" key
ESC ? x	ESC O x	"8" key
ESC ? y	ESC O y	"9" key

ANSI modes which are always considered to be in SET or RESET states, and those which do not apply to this product, are:

CRM	Control Representation Mode	RESET
EBM	Editing Boundary Mode	RESET
FEAM	Format Effector Action Mode	RESET
FETM	Format Effector Transfer Mode	RESET
HEM	Horizontal Editing Mode	RESET
MATM	Multiple Area Transfer Mode	N/A
PUM	Positioning Area Transfer Mode	RESET
SATM	Selected Area Transfer Mode	SET
SEM	Select Editing Extent Mode	Edit In Line
SRM	Send – Receive Mode	SET
SRTM	Status Report Transfer Mode	N/A
TSM	Tabulation Stop Mode	RESET
TTM	Transfer Termination Mode	SET
VEM	Vertical Editing Mode	RESET