

# Decimal to Octal to Hex to ASCII Conversion

GRAPHIC SYMBOLS : ☐

TO ENTER GRAPHICS MODE  
TO EXIT GRAPHICS MODE

ANSI  
MODE  
ESC | 10 m  
ESC | 11 m

HEATH/ZENITH  
MODE  
ESC F  
ESC G

Decimal	Octal	Hex	ASCII	Decimal	Octal	Hex	ASCII	Decimal	Octal	Hex	ASCII
0	000	00	NUL	32	040	20	SP	96	140	60	,
1	001	01	SOH	33	041	21	!	97	141	61	a
2	002	02	STX	34	042	22	..	98	142	62	b
3	003	03	ETX	35	043	23	#	99	143	63	c
4	004	04	EOT	36	044	24	\$	100	144	64	d
5	005	05	ENQ	37	045	25	%	101	145	65	e
6	006	06	ACK	38	046	26	&	102	146	66	f
7	007	07	BEL	39	047	27	.	103	147	67	g
8	010	08	BS	40	050	28	(	104	150	68	h
9	011	09	HT	41	051	29	)	105	151	69	i
10	012	0A	LF	42	052	2A	*	106	152	6A	j
11	013	0B	VT	43	053	2B	+	107	153	6B	k
12	014	0C	FF	44	054	2C	.	108	154	6C	l
13	015	0D	CR	45	055	2D	-	109	155	6D	m
14	016	0E	SO	46	056	2E	.	110	156	6E	n
15	017	0F	SI	47	057	2F	/	111	157	6F	o
16	020	10	DLE	48	060	30	0	112	160	70	p
17	021	11	DC1	49	061	31	1	113	161	71	q
18	022	12	DC2	50	062	32	2	114	162	72	r
19	023	13	DC3	51	063	33	3	115	163	73	s
20	024	14	DC4	52	064	34	4	116	164	74	t
21	025	15	NAK	53	065	35	5	117	165	75	u
22	026	16	SYN	54	066	36	6	118	166	76	v
23	027	17	ETB	55	067	37	7	119	167	77	w
24	030	18	CAN	56	070	38	8	120	170	78	x
25	031	19	EM	57	071	39	9	121	171	79	y
26	032	1A	SUB	58	072	3A	..	122	172	7A	z
27	033	1B	ESC	59	073	3B	..	123	173	7B	{
28	034	1C	FS	60	074	3C	<	124	174	7C	}
29	035	1D	GS	61	075	3D	=	125	175	7D	~
30	036	1E	RS	62	076	3E	=	126	176	7E	DEL
31	037	1F	US	63	077	3F	> ?	127	177	7F	

# Heath/Zenith Mode

# ANSI Mode

## Control Characters

007Q (BEL)	BELL
010Q (BS)	BACKSPACE
011Q (HT)	HORIZONTAL TAB (SAME AS VT52)
012Q (LF)	LINE FEED
015Q (GR)	CARRIAGE RETURN
021Q (XON)	XON
023Q (XOFF)	XOFF
030Q (CAN)	CANCEL CURRENT CONTROL SEQUENCE
033Q (ESC)	ESCAPE

## Cursor Functions

ESC A	CURSOR UP	(CUU)	ESC   Pn A
ESC B	CURSOR DOWN	(CUD)	ESC   Pn B
ESC C	CURSOR FORWARD	(CUF)	ESC   Pn C
ESC D	CURSOR BACKWARD	(CUB)	ESC   Pn D
ESC H	CURSOR HOME	(CUH)	ESC   H
		or	ESC   0;0 H
		or	ESC   1;1 H
		or	ESC   f
		or	ESC   0;0 f
		or	ESC   1;1 f
		or	ESC   M
ESC I	REVERSE INDEX	(RI)	ESC   P1;Pc H
ESC Y	DIRECT CURSOR ADDRESSING (SAME AS VT52)	(CUP)	ESC   P1;Pc f
ESC J	SAVE CURSOR POSITION	(PSCP)	ESC   s
ESC n	CURSOR POSITION REPORT	(CPR)	ESC   n
ESC k	SET CURSOR TO PREVIOUSLY SAVED POSITION	(PRCP)	ESC   u

## Erasing and Editing

ESC E	CLEAR DISPLAY (SHIFT ERASE)	(ED)	ESC   2 J
ESC J	ERASE TO END OF PAGE (ERASE KEY)	(ED)	ESC   J
		or	ESC   0 J
ESC K	ERASE TO END OF LINE	(EL)	ESC   K
		or	ESC   0 K
ESC L	INSERT LINE	(IL)	ESC   Pn L
ESC M	DELETE LINE	(DL)	ESC   Pn L
ESC N	DELETE CHARACTER	(DCH)	ESC   Pn P
ESC O	EXIT INSERT CHARACTER MODE	(IRM)	ESC   4 I
ESC a	ENTER INSERT CHARACTER MODE	(IRM)	ESC   4 h
ESC b	ERASE BEGINNING OF DISPLAY	(ED)	ESC   1 J
ESC I	ERASE ENTIRE LINE	(EL)	ESC   2 K
ESC o	ERASE BEGINNING OF LINE	(EL)	ESC   1 K

## Modes of Operation

ESC F	ENTER GRAPHICS MODE	(SGR)	ESC   10 m
ESC G	EXIT GRAPHICS MODE	(SGR)	ESC   11 m
ESC I	ENTER HOLD SCREEN MODE	(SM)	ESC   3 h
ESC =	ENTER ALTERNATE KEYPAD MODE	(SM)	ESC =
		or	ESC   7 h
ESC >	EXIT ALTERNATE KEYPAD MODE	(RM)	ESC >
		or	ESC   7 l
ESC p	ENTER REVERSE VIDEO MODE	(SGR)	ESC   7 m
ESC q	EXIT REVERSE VIDEO MODE	(SGR)	ESC   m
		or	ESC   0 m
ESC t	ENTER KEYPAD SHIFTED MODE	(SM)	ESC   6 h
ESC u	EXIT KEYPAD SHIFTED MODE	(RM)	ESC   6 l

## Alternate Keypad Sequence

ESC ? M	ENTER KEY	ESC O M
ESC ? n	PERIOD (.) KEY	ESC O n
ESC ? p	0 KEY	ESC O p
ESC ? q	1 KEY	ESC O q
ESC ? r	2 KEY	ESC O r
ESC ? s	3 KEY	ESC O s
ESC ? t	4 KEY	ESC O t
ESC ? u	5 KEY	ESC O u
ESC ? v	6 KEY	ESC O v
ESC ? w	7 KEY	ESC O w
ESC ? x	8 KEY	ESC O x
ESC ? y	9 KEY	ESC O y

# Heath/Zenith Mode

# ANSI Mode

## Configuration

ESC r Bn	MODIFY BAUD RATE Bn VALUES:
A = 110	G = 2000
B = 150	H = 2400
C = 300	I = 3600
D = 600	J = 4800
E = 1200	K = 7200
F = 1800	L = 9600

## SET MODES

ESC x Ps SET MODES (SM) ESC | Ps h

Ps =

- 1 = ENABLE 25th LINE
- 2 = NO KEY CLICK
- 3 = ENTER ALTERNATE KEYPAD MODE
- 4 = ENTER HOLD SCREEN MODE
- 5 = BLOCK CURSOR
- 5 = CURSOR OFF

## RESET MODE

ESC y Ps RESET MODE (RM) ESC | Ps l

Ps =

- 1 = DISABLE 25th LINE
- 2 = ENABLE KEY CLICK
- 3 = EXIT HOLD SCREEN MODE
- 4 = UNDERScore CURSOR
- 5 = CURSOR ON

ENTER ANSI MODE

ENTER HEATH/ZENITH MODE

RESET TO POWER-UP CONFIGURATION

N/A

(PEZM)

(PRAM)

## Additional Functions

ESC Z	IDENTIFY AS VT52 (ESC/K)	N/A	ESC   p
ESC #	TRANSMIT PAGE	(PXTM)	ESC   q
ESC I	TRANSMIT 25th LINE	(PX25)	ESC   2 i
ESC {	KEYBOARD ENABLE	(RM)	ESC   2 h
ESC }	KEYBOARD DISABLE	(SM)	ESC   2 h
ESC v	WRAP-AROUND AT END OF LINE	(SM)	ESC   7 h
ESC w	DISCARD AT END OF LINE	(RM)	ESC   7 i

Note: The Terminal will transmit the following functions, but will not respond if they are received.

ESC P	BLUE FUNCTION KEY	(SS3)	ESC O P
ESC Q	RED FUNCTION KEY	(SS3)	ESC O Q
ESC R	GREY FUNCTION KEY	(SS3)	ESC O R
ESC S	f1 FUNCTION KEY	(SS3)	ESC O S
ESC T	f2 FUNCTION KEY	(SS3)	ESC O T
ESC U	f3 FUNCTION KEY	(SS3)	ESC O U
ESC V	f4 FUNCTION KEY	(SS3)	ESC O V
ESC W	f5 FUNCTION KEY	(SS3)	ESC O W

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
ERM	ERASURE MODE	SET
FEAM	FORMAT EFFECTOR ACTION MODE	RESET
FETM	FORMAT EFFECTOR TRANSFER MODE	RESET
GATM	GUARDED AREA 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
SRTM	STATUS REPORTING TRANSFER MODE	N/A
TSM	TABULATION STOP MODE	N/A
TTM	TRANSFER TERMINATION MODE	SET
VEM	VERTICAL EDITING MODE	RESET
SEM	SET EDITING EXTENT MODE	EDIT IN LINE