

# Appendix II

## Key Translation Tables.

See section 3, and section 3.2 in particular, for a description of key translation. Also, Appendix I, which gives the key numbering scheme, may be of interest.

The diagrams given in the Appendix are for the 464 and 664 keyboards. The 6128 keyboard is similar but some keys have been moved. The new location of the keys can be deduced by inspecting Appendix I.

There are three keyboard translation tables used. These convert a key into its associated character or token. One table is used to translate keys when the control key is pressed, one is used to translate keys when the shift key is pressed or the shift lock is on but the control key is not pressed, the last is used to translate keys when neither shift nor control is pressed.

The diagrams following describe the default translation tables. Where possible the correct character has been placed on the key. The actual value for each of these characters can be found in Appendix VI on the character set. In the cases where the key produces a value which is not a printable ASCII character the abbreviations in the following table will be used. The default settings of the expansion tokens are given in Appendix IV.

### Characters and Codes

NUL	#00	ASCII control code.
SOH	#01	ASCII control code.
STX	#02	ASCII control code.
ETX	#03	ASCII control code.
EOT	#04	ASCII control code.
ENQ	#05	ASCII control code.
ACK	#06	ASCII control code.
BEL	#07	ASCII control code.
BS	#08	ASCII control code.
HT	#09	ASCII control code.
LF	#0A	ASCII control code.
VT	#0B	ASCII control code.
FF	#0C	ASCII control code.
CR	#0D	ASCII control code.
SO	#0E	ASCII control code.
SI	#0F	ASCII control code.

DLE	#10	ASCII control code.
DC1	#11	ASCII control code.
DC2	#12	ASCII control code.
DC3	#13	ASCII control code.
DC4	#14	ASCII control code.
NAK	#15	ASCII control code.
SYN	#16	ASCII control code.
ETB	#17	ASCII control code.
CAN	#18	ASCII control code.
EM	#19	ASCII control code.
SUB	#1A	ASCII control code.
ESC	#1B	ASCII control code.
FS	#1C	ASCII control code.
GS	#1D	ASCII control code.
RS	#1E	ASCII control code.
US	#1F	ASCII control code.
SPACE	#20	ASCII space character.
UP	#8E	Up arrow.
DEL	#7F	ASCII code.
LB	#A3	Pound character

#### Expansion Tokens

F0	#80	Function key 0.
F1	#81	Function key 1.
F2	#82	Function key 2.
F3	#83	Function key 3.
F4	#84	Function key 4.
F5	#85	Function key 5.
F6	#86	Function key 6.
F7	#87	Function key 7.
F8	#88	Function key 8.
F9	#89	Function key 9.

F.	#8A	Function key full stop.
FEN	#8B	Function key enter without control pressed.
FRUN	#8C	Function key enter with control pressed.

#### Edit and Cursor Codes.

COPY	#E0	Copy key.
INS	#E1	Insert/overwrite toggle key.
WUP	#F0	Write cursor up.
WDN	#F1	Write cursor down.
WLT	#F2	Write cursor left.
WRT	#F3	Write cursor right.
RUP	#F4	Read cursor up.
RDN	#F5	Read cursor down.
RLT	#F6	Read cursor left
RRT	#F7	Read cursor right.
BEG	#F8	Write cursor to start of text.
END	#F9	Write cursor to end of text.
STA	#FA	Write cursor to start of line.
FIN	#FB	Write cursor to end of line.

#### System Tokens.

BRK	#FC	Break key token.
CAPS	#FD	Caps lock toggle token.
SHIFT	#FE	Shift lock toggle token
	#FF	Ignore.

Keys that are not marked in the diagrams following generate the system ignore token, #FF.

## Normal Translation Table.

The following diagram describes the translation when neither shift nor control is pressed.

### Main Keyboard

BRK	1	2	3	4	5	6	7	8	9	0	-	UP	DLE	CLR
HT	q	w	e	r	t	y	u	i	o	p	@	[		
CAPS	a	s	d	f	g	h	j	k	l	:	;	]		
	z	x	c	v	b	n	m	,	.	/	\			
SPACE														

### Function/Numeric Keypad

F7	F8	F9
F4	F5	F6
F1	F2	F3
F0	F.	FEN

### Cursor Keys

	WUP	
WLT	COPY	WRT
	WDN	

### JOYSTICK 0

	VT		
BS	FIRE 2 x	FIRE 1 z	HT
	LF		

### JOYSTICK 1

	6		
r	FIRE 2 f	FIRE 1 g	t
	5		

## Shift Translation Table.

The following diagram describes the translation when either shift key is pressed, or the shift lock is on, but the control key is not pressed.

### Main Keyboard

BRK	!	“	#	\$	%	&	‘	(	)	_	=	LB	DLE	DEL
HT	Q	W	E	R	T	Y	U	I	O	P		{	CR	
CAPS	A	S	D	F	G	H	J	K	L	*	+	}		
		Z	X	C	V	B	N	M	<	>	?	`		
SPACE														

### Function/Numeric Keypad

F7	F8	F9
F4	F5	F6
F1	F2	F3
F0	F.	FEN

### Cursor Keys

	RUP	
RLT	COPY	RRT
	RDN	

### JOYSTICK 0

	VT		
BS	FIRE 2 X	FIRE 1 Z	HT
	LF		

### JOYSTICK 1

	%		
R	FIRE 2 G	FIRE 1 F	T
	&		

## Control Translation Table.

The following diagram describes the translation when the control key is pressed.

### Main Keyboard

BRK		~									US		RS	DLE	DEL
INS	DC1	ETB	ENQ	DC2	DC4	EM	NAK	HT	SI	DLE	NUL	ESC	CR		
SHIFT	SOH	DC3	EOT	ACK	BEL	ES	LF	VT	FF				GS		
	SUB	CAN	ETX	SYN	STX	SO	CR						FS		

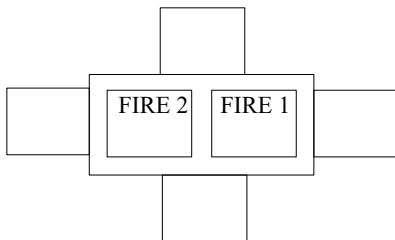
### Function/Numeric Keypad

F7	F8	F9
F4	F5	F6
F1	F2	F3
F0	F.	FEN

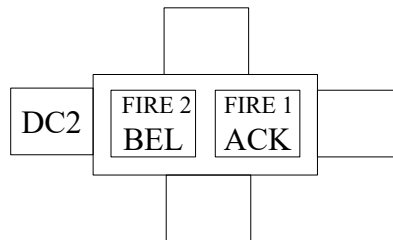
### Cursor Keys

	BEG	
STA	COPY	FIN
	END	

### JOYSTICK 0



### JOYSTICK 1



aaaa