

# OS-9 Level 2 Keyboard Codes

0	00	NUL	CTRL @
			CTRL 2
			CTRL 4
			CTRL 5
			CTRL 6
			CTRL :
1	01	SOH	CTRL A
2	02	STX	CTRL B
3	03	ETX	CTRL C
			SHIFT BREAK
4	04	EOT	CTRL D
5	05	ENQ	CTRL E
			BREAK
6	06	ACK	CTRL F
7	07	BEL	CTRL G
8	08	BS	CTRL H
			←
9	09	HT	CTRL I
			→
10	0A	LF	CTRL J
			↓
11	0B	VT	CTRL K
12	0C	FF	CTRL L
			↑
13	0D	CR	CTRL M
			ENTER
			SHIFT ENTER
			CTRL ENTER
14	0E	SO	CTRL N
15	0F	SI	CTRL O
16	10	DLE	CTRL P
			CTRL ←
17	11	DC1	CTRL Q
			CTRL →
18	12	DC2	CTRL R
			CTRL ↓
19	13	DC3	CTRL S
			CTRL ↑
20	14	DC4	CTRL T
21	15	NAK	CTRL U
22	16	SYN	CTRL V
23	17	ETB	CTRL W
24	18	CAN	CTRL X
			SHIFT ←
25	19	EM	CTRL Y
			SHIFT →
26	1A	SUB	CTRL Z
			SHIFT ↓
27	1B	ESC	CTRL BREAK
28	1C	FS	SHIFT ↑
29	1D	GS	
30	1E	RS	
31	1F	US	

The main table lists for each ASCII code

- The decimal value;
- the hexadecimal value;
- the character represented;
- and
- the OS-9 keystrokes that send this code.

In addition to the listed keystrokes, three more are meaningful:

**CLEAR**  
moves forward one window;

**SHIFT CLEAR**  
moves backward one window;

and

**CTRL 0**  
toggles the shift-lock condition, swapping the keystrokes for characters A-Z with those for a-z when in effect.

32	20	␣	␣
			SHIFT ␣
			CTRL ␣
33	21	!	SHIFT 1
34	22	"	SHIFT 2
35	23	#	SHIFT 3
36	24	\$	SHIFT 4
37	25	%	SHIFT 5
38	26	&	SHIFT 6
39	27	'	SHIFT 7
40	28	(	SHIFT 8
41	29	)	SHIFT 9
42	2A	*	SHIFT :
43	2B	+	SHIFT ;
44	2C	,	,
45	2D	-	-
46	2E	.	.
47	2F	/	/
48	30	0	0
			SHIFT 0
49	31	1	1
50	32	2	2
51	33	3	3
52	34	4	4
53	35	5	5
54	36	6	6
55	37	7	7
56	38	8	8
57	39	9	9
58	3A	:	SHIFT *
59	3B	;	;
60	3C	<	SHIFT ,
61	3D	=	SHIFT -
62	3E	>	SHIFT .
63	3F	?	SHIFT /

Key	Offset	Key	Offset
@	5A2	5	5C3
↑	5A5	6	5C6
↓	5A8	7	5C9
←	5AB	8	5CC
→	5AE	9	5CF
␣	5B1	:	5D2
0	5B4	:	5D5
1	5B7	.	5D8
2	5BA	-	5DB
3	5BD	.	5DE
4	5C0	/	5E1
		ENTER	5E4
		CLEAR	5E7
		BREAK	5EA
		F1	5ED
		F2	5F0

The CC3IO module contains a table with 3 bytes for each nonalphabetic key; the table to the left lists the offset to each key's entry. Each entry lists the byte to return for:

- (offset+0) that plain key,
- (+1) that shifted key,
- and (+2) that controlled key

The key codes in the table mean:

- \$00-80 Return that value.
- 81 Shift lock toggle.
- 82 Forward window.
- 83 Backward window.
- 84 (no operation)
- 85-FF Return that value.

The function keys always return a code with bit 8 set.

This table may be altered to customize the keyboard and map otherwise untypable characters; the redundant keystrokes for null, enter, and space are especially attractive targets for modification. Alphabetic keys are processed algorithmically.

96	60	'	SHIFT @
97	61	a	A
98	62	b	B
99	63	c	C
100	64	d	D
101	65	e	E
102	66	f	F
103	67	g	G
104	68	h	H
105	69	i	I
106	6A	j	J
107	6B	k	K
108	6C	l	L
109	6D	m	M
110	6E	n	N
111	6F	o	O
112	70	p	P
113	71	q	Q
114	72	r	R
115	73	s	S
116	74	t	T
117	75	u	U
118	76	v	V
119	77	w	W
120	78	x	X
121	79	y	Y
122	7A	z	Z
123	7B	{	CTRL .
124	7C		CTRL 1
125	7D	}	CTRL .
126	7E	~	CTRL 3
127	7F	DEL	CTRL ;