# Keyboard layout

| 1st | 1<br>!<br>F1 | 2<br>@<br>F2 | 3<br>#<br>F3 | 4<br>$<br>F4 | 5<br>%<br>F5 | 6<br>^<br>F6 | 7<br>&<br>F7 | 8<br>*<br>F8 | 9<br>(<br>F9 | 0<br>)<br>F10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2nd | Q<br>q<br>=<br>+ | W<br>w<br>-<br>_ | E<br>e<br>[<br>{ | R<br>r<br>]<br>} | T<br>t<br>\<br>\| | Y<br>y<br>'<br>" | U<br>u<br>`<br>~ | I<br>i<br>Pause<br>Up | O<br>o<br>Inserts<br>Space | P<br>p<br>Enter |
| 3rd | A<br>a | S<br>s | D<br>d | F<br>f | G<br>g | H<br>h | J<br>j<br>Left | K<br>k<br>Down | L<br>l<br>Right | ;<br>:<br>Escape |
| 4th | Z<br>z | X<br>x | C<br>c | V<br>v | B<br>b<br>Back-<br>space<br>Delete | N<br>n | M<br>m | ,<br>< | .<br>> | /<br>? |

Like all Z80 input, reading the keyboard gives an 8-bit number. The bits are laid out as follows:

GG IIIIII

First two bits (GG) are the id of the group the virtual key belongs to.
Uppercase letters are in group 1, and lowercase are in group 2. If you modify the keyboard settings to ignore non-letter characters, a check like the following is an easy way to test if a letter is uppercase or not:

```
;a contains the input
push af
;reset the lower 6 bits
and 0xC0
;if 0, uppercase – else, lowercase
cp 0
; restore a – pop doesn't affect any condition flags
pop af
jr z, uppercase
;letter is lowercase
;do some operation – set a flag, whatever
jr both

uppercase:
    ;letter is uppercase
    ;do some operation – convert to lowercase?
    jr both
both:
    ;code executed regardless of case
```