

# Keyboard Utilities



# Keyboard Speaker

This program allows your BBC Micro to speak a word corresponding to the key you've pressed on the keyboard. The translation table is held in &A00 to &AFF and is filled up using the routine at lines 380 to 580. It can be turned off using \*FX 13,2 and \*FX 13,6.

```
10 *FX 225 0
20 O%=&B00
30 FOR P=0 TO 1
40   P%=&B00
50   [OPT P*3
60   CMP #2:BEQ event
70   CMP #6:BEQ escape
80   RTS
90   .escape
100  PHP:PHA:TYA:PHA
110  LDA #125:JSR &FFF4
120  LDY #27:JSR event
130  PLA:TAY:PLA:PLP
140  RTS
150  .event PHP:PHA
160  TXA:PHA
170  TYA:PHA
180  STY &70:JSR translate
190  LDA #21:LDX #8:JSR &FFF4
200  LDX #snd MOD256
210  LDY #snd DIV256
220  LDA #7:JSR &FFF1
230  PLA:TAY
240  PLA:TAX
250  PLA:PLP
260  .end RTS
```

```

270      .translate LDA &0A00,Y
280      CMP #0:BNE ok
290      LDA #127
300      .ok STA word
310      RTS
320      .snd BRK:]
330      !(P%-1)=&0000FFFF
340      !(P%+3)=&00000000
350      word=P%+1
360      NEXT
370      !&220=!&220 AND &FFFF0000 OR 0%
380      FOR A%=0 TO 255
390          B%=0
400          IF A%>=48 AND A%<=57 THEN B%=A%
410          IF A%>=65 AND A%<=90 THEN B%=A%
420          IF A%>=97 AND A%<=122 THEN B%=A%
-32
430          IF A%=13 THEN B%=252
440          IF A%=ASC"+" THEN B%=A%
450          IF A%=ASC"-" THEN B%=A%
460          IF A%=ASC"*" THEN B%=A%
470          IF A%=ASC"." THEN B%=A%
480          IF A%=142 THEN B%=187
490          IF A%=61 THEN B%=A%
500          IF A%=ASC">" THEN B%=A%
510          IF A%=ASC"<" THEN B%=A%
520          IF A%=ASC"`" THEN B%=245
530          IF A%=ASC"_" THEN B%=216
540          IF A%=145 THEN B%=250
550          IF A%=27 THEN B%=194
560          IF A%=127 THEN B%=180
570          A%?&A00=B%
580      NEXT
590      *FX 14 2
600      *FX 14 6

```

# Auto Repeat

Many commercial games disable the auto-repeat function. This means, for example, that if you wish to fire your laser several times rapidly, you have to lift your finger off the key and press it again every time you want to fire. This program allows you to fool the computer into thinking you have pressed the key over and over again incredibly quickly.

Once you've entered and run this program, the computer will be ready for your game to be loaded. Make sure you don't press **BREAK** between running the auto-repeat program and loading the game you are to play. The key which this particular program repeats is the **RETURN** key (see the -74 in line 50). This can easily be changed to any key you want, just by modifying the value. The speed of the repeat is set in line 60. It is set here to 1 which means the repeat is continuous. Higher values slow the repeat rate down. The value of 0% in line 40 will work with most programs. However, if you find that it doesn't work with a particular program (some problems occur with software-protected programs), change the &B00 to a lower value (which the program will not corrupt) such as &900.

```
10 REM Auto Repeat on INKEY(key)
20
30 VECTP=!&20A AND &FFFF
40 O%=&B00
50 key=-74
60 speed=1
70 REPEAT
80   IF key<0 THEN key=key+256
90   IF key>256 THEN key=key-256
100  UNTIL key>=0 AND key<=256
110  FOR P=0 TO 1
120    P%=O%
```

```

130      [OPT P*3
140      CMP #&81:BEQ inkey
150      JMP VECTP
160      .inkey CPY #&80:BPL test
170      JMP VECTP
180      .test CPX#key:BEQ fire
190      JMP VECTP
200      .fire JSR VECTP
210      BCS pfire
220      LDA #0:STA flag
230      RTS
240      .pfire LDA flag
250      CMP #speed:BEQ fireok
260      INC flag:LDA #&81
270      LDX #0:LDY #0:CLC:RTS
280      .fireok LDA #0:STA flag
290      LDA #&81:RTS
300      ]
310      flag=P%
320      ?flag=speed
330      NEXT
340      !&20A=!&20A AND &FFFF0000 OR 0%

```

# Keyboard Sounder

This program gets the computer to emit a click sound each time a key is pressed. Once you've run the program, you can delete it. To turn on the 'click' use \*FX 14,2 with \*FX 13,2 to turn it off. The last pair of digits in line 190 controls the pitch (set in this listing to &FF). The volume is controlled by the second pair of digits in line 180, currently at &F1 (-15).

```
10 *FX 225 0
20 O%=&B00
30 FOR P=0 TO 1
40   P%=&B00
50   [OPT P*3
60   CMP #2:BNE end
70   PHP:PHA
80   TXA:PHA
90   TYA:PHA
100  LDX #snd MOD 256
110  LDY #snd DIV 256
120  LDA #7:JSR &FFF1
130  PLA:TAY
140  PLA:TAX
150  PLA:PLP
160  .end RTS
170  .snd BRK:]
180  !(P%-1)=&FFF10001
190  !(P%+3)=&000100FF
200  NEXT
210  !&220=!&220 AND &FFFF0000 OR O%
```

