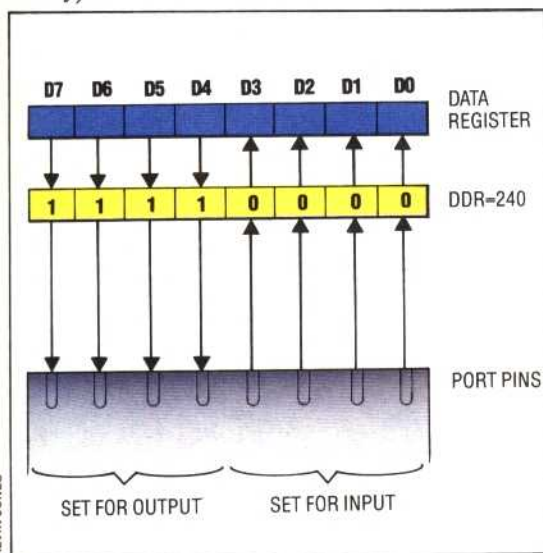




line to output mode, and a zero allows input to be received. To set all eight user port lines to output, the DDR would have to be set to 255 (i.e. 11111111 in binary). Similarly, all eight lines can be set to accept input by setting the value in the DDR to zero. The eight lines can be configured in any combination of input or output lines by setting the appropriate value of the DDR. For example, the most significant four lines of the user port could be set to output mode, and the least significant four to input by placing the value 240 (i.e. 11110000 in binary) in the DDR.



The data and data direction registers have the following addresses:

Micro Type	Data Register	Data Direction Register
BBC Micro	&FE60 (65120 dec)	&FE62 (65122 dec)
Commodore 64	SDD01 (56577 dec)	SDD03 (56579 dec)

The following program sets the user port so that all eight lines may be used for input, and displays the data register contents:

```

4 REM*****C64*****
5 REM*   DATREG DISPLAY   *
6 REM*****C64*****
10 DIM A$(10):A$(0)="E":A$(1)="H"
20 DATREG=56577:DDR=56579
30 POKE DDR,0:REM = INPUT ONLY
50 :
100 PE=PEEK(DATREG):GOSUB 500
150 PRINT"DATREG =":PE;"=":B$
200 GOTO 100
300 :
499 REM*****
500 REM*   BINARY CONVERT S/R *
501 REM*****
550 B$="":N=PE
600 FOR D=1 TO 8
650 N1=INT(N/2):R=N-2*N1
700 B$=A$(R)+B$:N=N1
750 NEXT D:RETURN

```

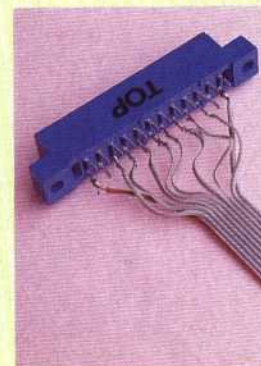
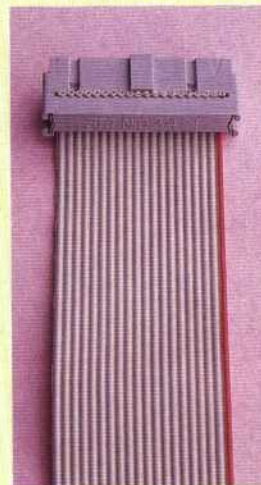
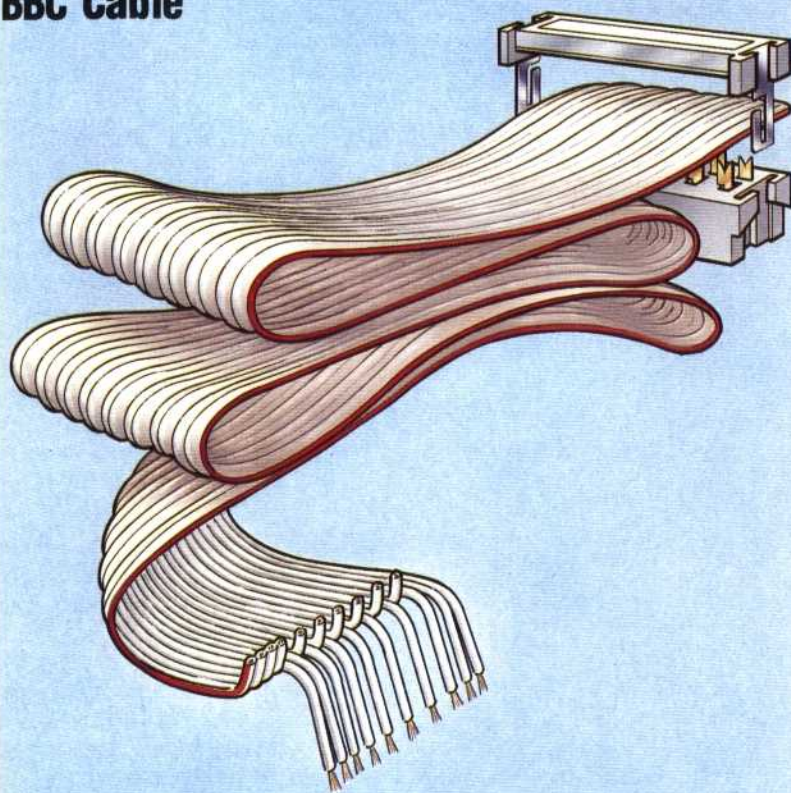
On the BBC Micro, make these changes:

```

20 DATREG=&FE60:DDR=&FE62
30 ?DDR=0
100 PE=?<PE>:GOSUB 500

```

BBC Cable



Leading Lines

The BBC Micro and Commodore 64 user port leads