A demonstration program showing the use of baud rate changes is shown below.

```
' Negotiate three baud rates on the PROTON Serial LCD
' Using a 12F675 8-pin PICmicro

Device = 12F675
XTAL = 4

Dim ACK_BYTE as Byte

Symbol T1200 = 813
Symbol T4800 = 188
Symbol T9600 = 84

Delayms 500                 ' Wait for PICmicro to stabilise
ANSEL = 0                   ' Set pins to digital mode
CMCON = 7                   ' Disable ADCs
Serout GPIO.2, T9600,[Cls,"HELLO THERE"]
Serout GPIO.2, T9600,[254,192,"AT 9600 BAUD"]
Delayms 500                 ' Display for 500ms

Serout GPIO.2, T9600,[254,253,"4800",13]     ' Set BAUD rate to 4800
' Receive the ACK byte
TRY_AGAIN_FOR_4800:
Serin GPIO.2, T9600,1000,TRY_AGAIN_FOR_4800,[ACK_BYTE]
If ACK_BYTE <> "O" Then TRY_AGAIN_FOR_4800 : Else : Delayms 100

Serout GPIO.2,T4800,[Cls,"HELLO AGAIN"]
Serout GPIO.2,T4800,[254,192,"AT 4800 BAUD"]
Delayms 500                 ' Display for 500ms

Serout GPIO.2,T4800,[254,253,"1200",13] ' Set BAUD rate to 1200
' Receive the ACK byte
TRY_AGAIN_FOR_1200:
Serin GPIO.2,T4800,1000,TRY_AGAIN_FOR_1200,[ACK_BYTE]
If ACK_BYTE <> "O" Then TRY_AGAIN_FOR_1200 : Else : Delayms 100

Serout GPIO.2,T1200,[Cls,"HELLO AGAIN"]
Serout GPIO.2,T1200,[254,192,"AT 1200 BAUD"]
Stop
```

A demonstration program showing the general use of the Serial LCD is listed below. The code is for use with an 8-pin 12F675 device.

```
' Write the text 'HELLO WORLD' on the LCD
' Using a 12F675 8-pin PICmicro

Device = 12F675
XTAL = 4

RSOUT_PIN = GPIO.2          ' Serial out pin
RSOUT_MODE = TRUE           ' Set TRUE mode
SERIAL_BAUD = 9600          ' Baud rate of 9600
RSOUT_PACE = 1              ' 1ms delay between characters

Dim COUNT_VARIABLE as DWord

Delayms 500                 ' Wait for PICmicro to stabilise
ANSEL = 0                   ' Set pins to digital mode
CMCON = 7                   ' Disable ADCs
Rsout Cls                   ' Clear the LCD

Rsout "HELLO WORLD"         ' Write the text
AGAIN:
For COUNT_VARIABLE = 0 to 2000000
  Rsout at 2,1,DEC COUNT_VARIABLE,"          "
  Delayms 200
Next
Goto AGAIN
```

PROTON Serial LCD Circuit.