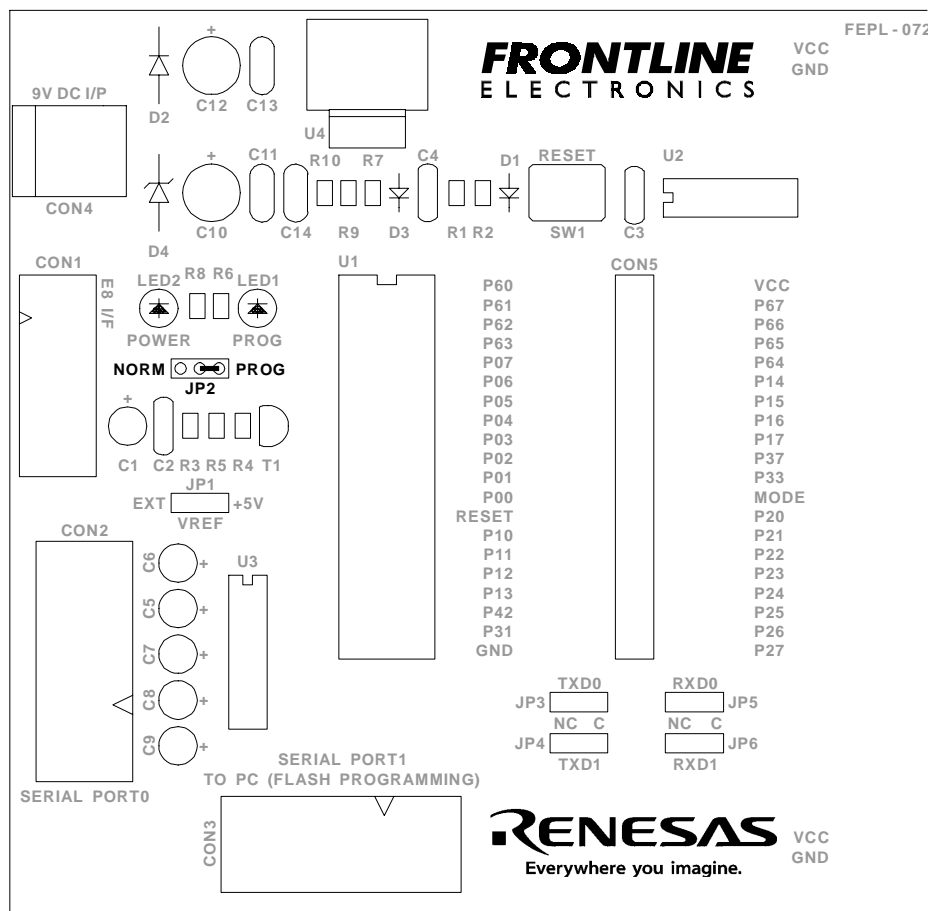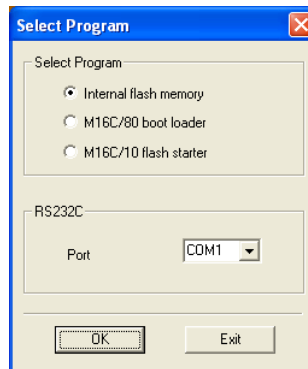## 1.1 On-Board Flash Programming.

Serial programming software M16C Flash Starter (free software) is available for programming the flash memory of the R8C micon. Use the executable file **Flashsta.exe** for programming. Before programming, you have to carry out certain jumper settings.
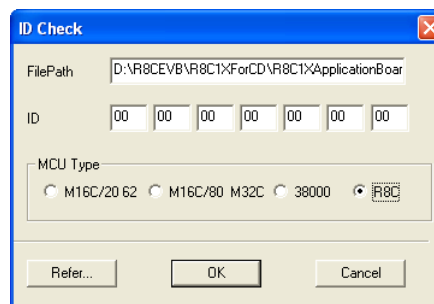
To select the serial port 1 of the micon, use jumpers JP4 and JP6. Place the jumper on C side for both JP4 and JP6. This connects the serial port 1 lines to the level shifter MAX 232. Connect the serial port cable between the PC and the board at the connector CON3 marked as "TO PC (FLASH PROGRAMMING)'. Put the jumper on 'PROG' side for JP2 to enable the programming mode.
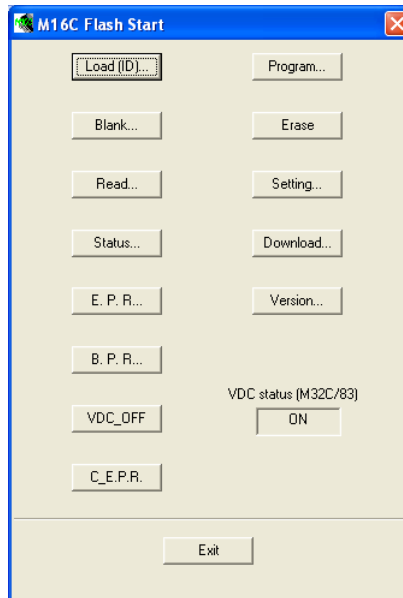
Switch on power to the board and press the Reset switch once. The micon now enters the programming mode. Execute the Flashsta.exe file from the PC. An opening screen shows up.

Select 'Internal Flash Memory' option and press OK. You will get a dialog box as shown below.

Select the file to be downloaded into the flash. Enter the ID as 0 initially as shown and select 'R8C option' in the MCU type. A screen appears as shown below.

Click the respective buttons to program the R8C micon.

After completing the flash programming, bring back the micon to normal mode by putting the jumper at '**NORM**' side of JP2 and press reset switch once.