What is Sky Prog Programmer?

This is a software tool for programming area of configuration the internal EEPROM memory of the microcontroller and an external EEPROM electronic modules appliances.

The program currently operates with modules of washing machines of the brand Candy.
1. The electronic modules production MDL, external memory 24C04, 512 bytes.
2. The electronic modules production INVENSYS, microcontroller Atmega32, internal memory, 1024 bytes + 256 bytes external memory.
3. The electronic modules production INVENSYS, microcontroller Atmega 644, internal memory, 2048 bytes + 256 bytes of external memory.
4. The electronic modules production INVENSYS, microcontroller Atmega 644, only the internal memory, 2048 bytes.

The program functions as:
1. Reading the contents of the internal and external EEPROM, saving to a file in various formats.
2. The programming of the internal and external EEPROM from a file.
3. Conclusion Statistics (last error, which errors occurred and how many times)

When you need to program the module:

When you install a new module is not configured.
When you install a used module on the product is another model.
When replacing the microcontroller.
When replacing the FLASH memory of the microcontroller.
When a software failure/damaged internal or external EEPROM.

After programming modules INVENSYS in the control cells of memory, write values required for correct operation of the module without error E15.

The hardware part.
1. Using hardware serial COM port (to Mount yourself, see diagram No. 1)
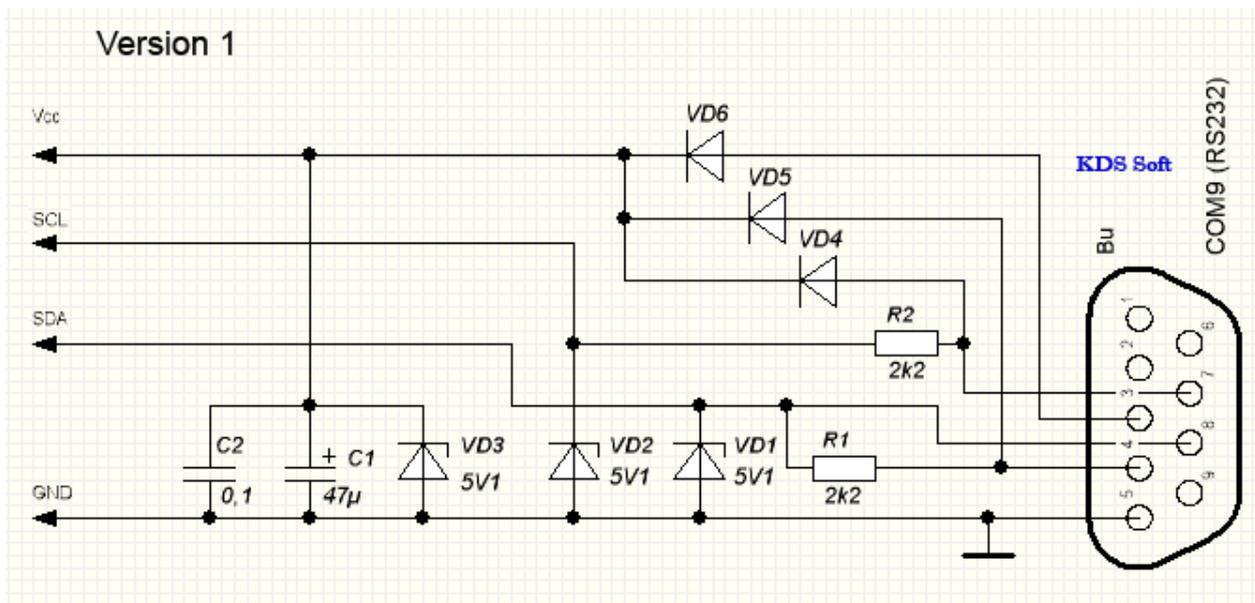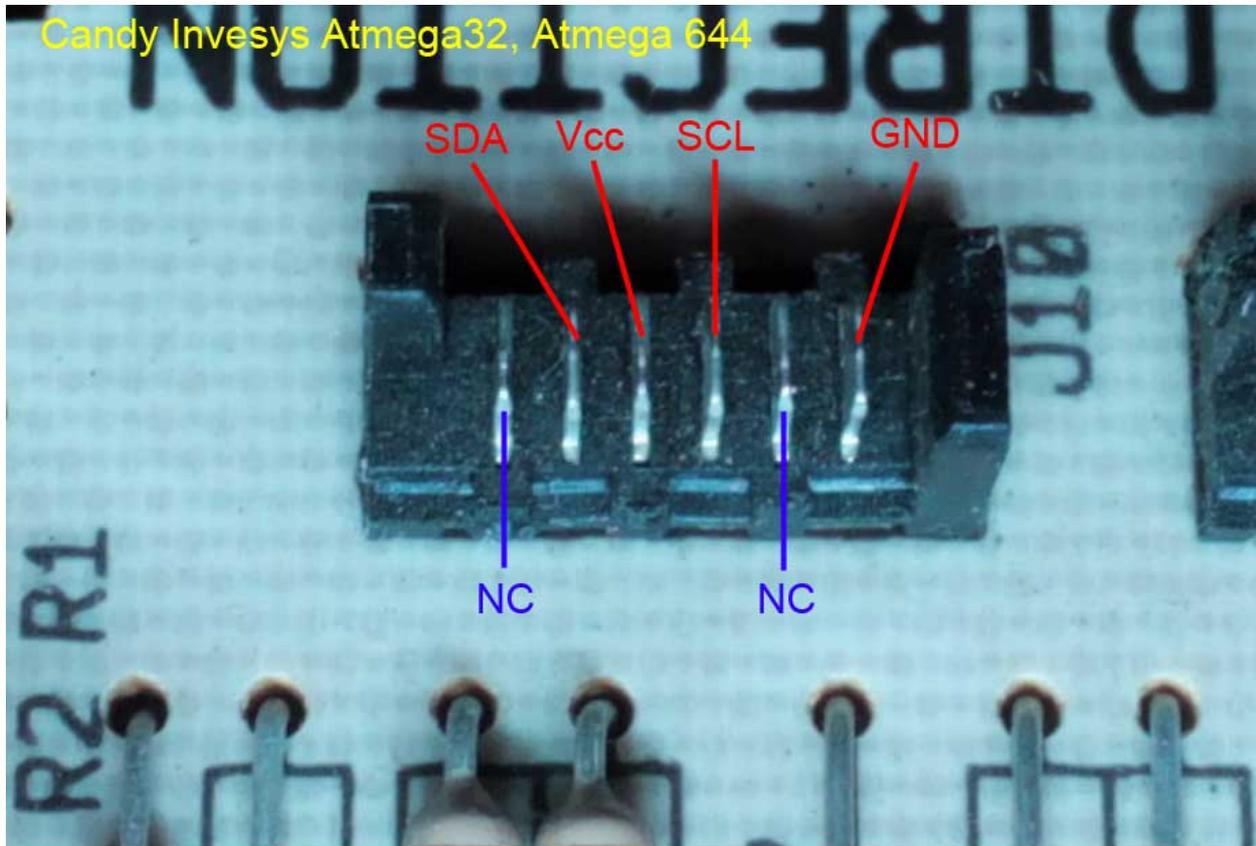
2. USB Elinv I2C Programmer.

Buy a ready option, the author of the program, website:

http://www.skyprog.net

or the developer of this hardware, website:

http://www.cmli.com.ru/ru/productlist/elinv-prog.html

Connection to module (Candy MDL, Candy Invensys) :

Getting started.

Connect the programmer to the computer and the module (first disconnect from the power supply module!).
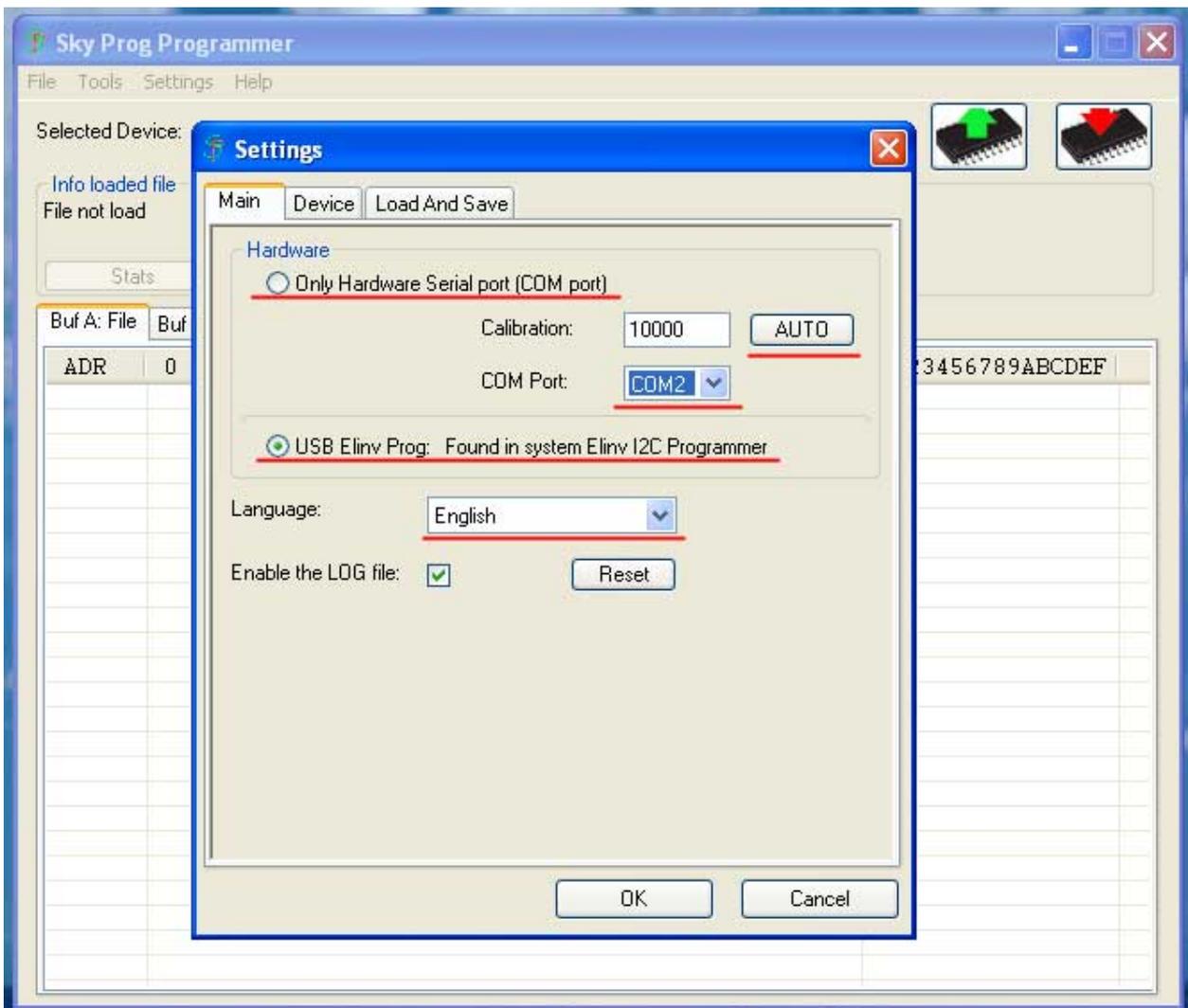
Start Sky Prog Programmer.

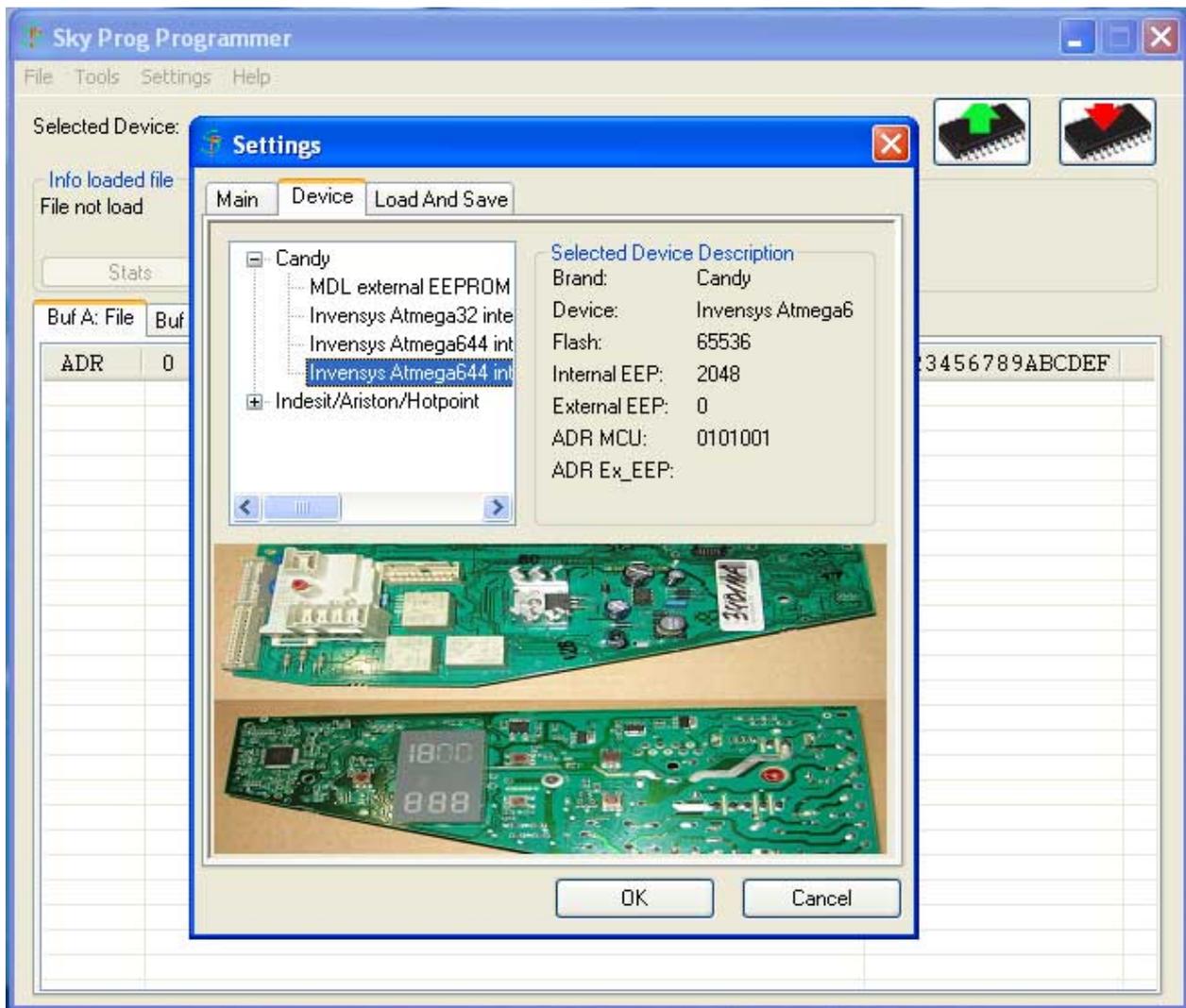Open the settings window from the Settings menu.

Change the language if necessary.

Select the programmer/port.

If you are using the COM port and the appropriate programmer, you need to calibrate.

Click the tab Device.
Select the type of module to which you want to work.

Exit the window of settings with confirmation of the changes.

Reading firmware:
To read click on the green arrow button.
Successful reading tabs Buf B or C Buf head of the window is filled with bytes represented in HEX format.
You can see the statistics of occurred errors, clicking on the Stats button (after the correct read firmware button should become active).

Programming.
Download the file with the correct firmware via the menu item File, or simply drag the file into the program window.
Press the button with the red arrow and confirm the need for writing the firmware into the chip.
After recording, it will check if the entry is not completed correctly, there will be a corresponding warning window.
The reasons are not valid entries, see below.

Note.
When programming (flashing) module MDL is necessary to close three contacts in the socket K13 (see Fig. below)
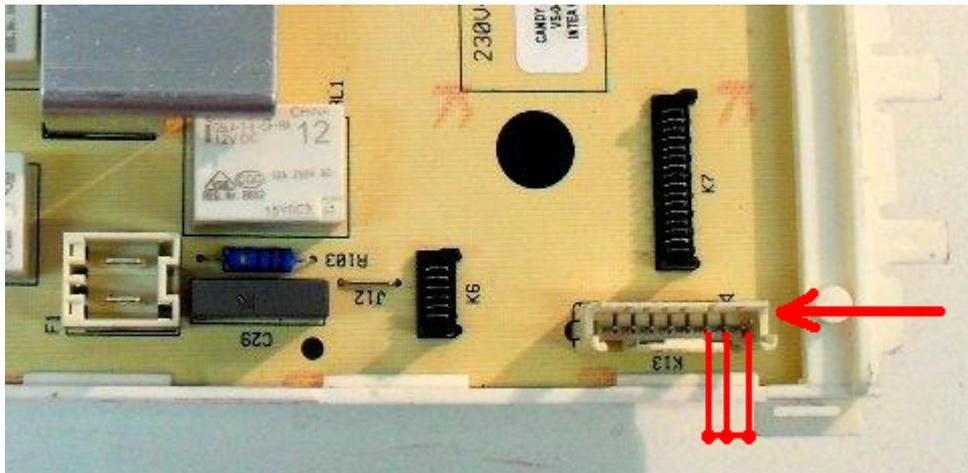
View error statistics.

After the correct read firmware you can see error statistics.

For this you need to activate the tab Buf B or Buf C, In this case Stats button should become active.

Click on the Stats button.

Note.

In order to avoid confusion, error codes to show statistics in modules Invensys is retrieved from the address space where the recording error is duplicated.

For modules Invensys, having external EEPROM, this is an external memory.

The data in the external memory modules only have configuration values, and these things are not loaded into the program when opening files - firmware from your computer.

For this reason, in these modules, the error output is possible only from a readed firmware from the module.

If after record and verification there is a message that didn't match the control bytes.

The reason is that you are trying to write to the module firmware, with which this module can not work. More specifically, the firmware does not fit the version of FLASH that is written into the microcontroller on this module.

For example, you wrote a module with LED or LCD display, the firmware which is designed for a module without a display.

In other words, you want to configure and install the module in the product for which the electronic module is not designed.

Success in your work!