

# **CONTROL PANEL**

## **CA-64**

### **FLASH64.EXE**

Program Description

Satel<sup>®</sup>

GDAŃSK, POLAND

## GENERAL INFORMATION

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The CA-64 alarm control panel is a state-of-the-art microprocessor-based device, controlled by a program located in the system's memory. Based on the users and installers' suggestions and wishes, designers of the control panel make efforts trying to customize the control panel functions. However, change of the control panel operation manner requires replacement of the microprocessor chip software. To facilitate such a replacement, FLASH type memory has been used for the control panel design. This allows the panel software to be replaced without physically dismounting the integrated circuit from the main board (which is the case with EPROM type memory), thus making removal of the installed panel from the building / site unnecessary. It is sufficient to connect the control panel to computer by means of a special cable, and to run suitable software i.e. the **flash64** on the computer and the **STARTER** on the control panel. Replacement of the FLASH type memory is commonly known as the "flashing".

**Note:** *The term **control panel software** refers here to the microprocessor operation control program, not to the system description data entered by the installer and users. These data are protected and not subject to change.*

Current version of the program is available through the *Internet* from the web site [www.satel.pl](http://www.satel.pl) (link PROGRAMS or INSTRUCTIONS – the file designated as **CA64.64**). Also available is the **FLASH64.EXE** program, necessary for replacement of the control panel software, as well as the current version of the **DLOAD.EXE** service program (supplied on floppy disk with a new main board for the control panel). Furthermore, information can be found there on modifications introduced into successive versions of the software.

The control panel contains software which is up-to-date on the day of the panel leaving the production line. Therefore, it is recommended to compare the version of the purchased control panel software with that available on the *Internet* and install the latest, upgraded version.

## CONNECTING THE CONTROL PANEL TO COMPUTER

The way of connecting the CA-64 control panel to computer is shown in Fig. 1.

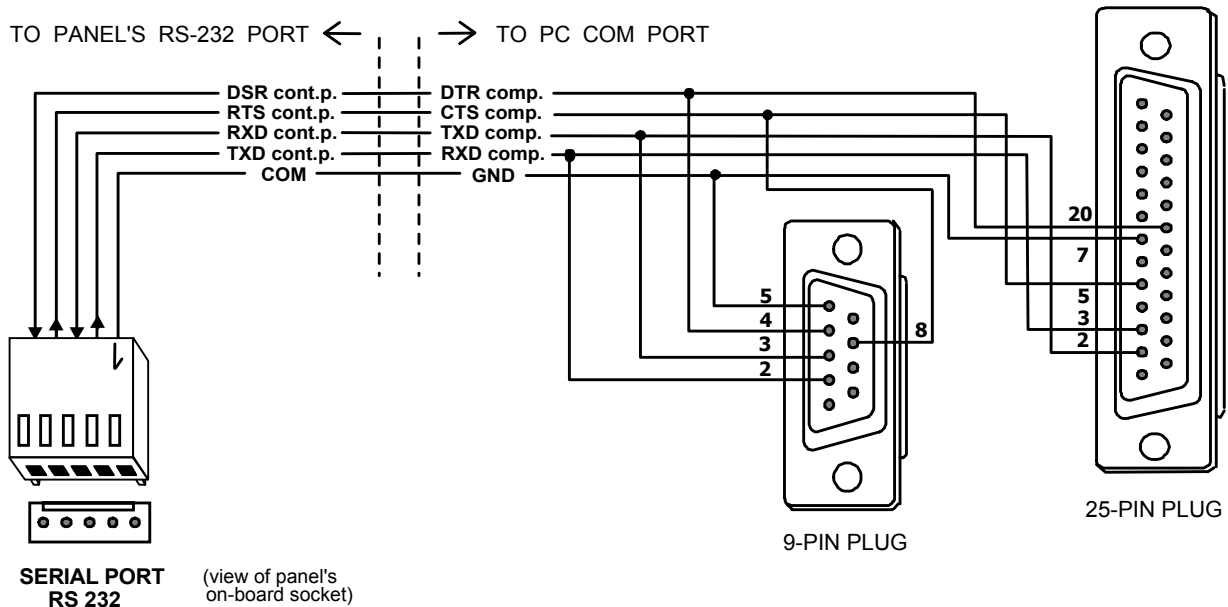


Fig. 1

To replace the FLASH memory contents, the cable intended for programming the CA-10 panel via the RS-232 port can also be used.

## REPLACEMENT OF THE PANEL OPERATION CONTROL PROGRAM

- Download from the *Internet* the CA64 software module and the FLASH64 program (both components form a complete package). The software module is packed into ZIP format and must be unpacked before being installed on the control panel.
- Connect the control panel to the computer using the RS-232 port on the main board. Use the communication port Com1 or Com2 in the PC.

### Notes:

- *Before launching the flash64 program, make sure the communication port is not blocked by any of the programs running on the computer. It is recommended that no programs be running in the background during replacement of the software.*
- *When the software is being replaced, the control panel must be connected to the **mains and emergency** (battery) power supply source. This is required by safety precautions, which are to be observed particularly when replacing the **STARTER** program. **Lack of the battery may cause an error during the panel programming process.***

If the Dload64 program is running, deactivate the RS-232 port (see Fig. 2). To do this, click the left mouse button on the field in the upper right corner of the screen (described here as **Com1**) – or press the combination of keys: Ctrl+C. Description of the current status of the port appears in the box next to the field in question after moving the mouse pointer to it. Each click on this field (or Ctrl+C) will change the port status to the opposite one. The port status is also indicated by the round field next to the designation **Com1**. Grey color means that the port is inactive, while another color – that the port is active.

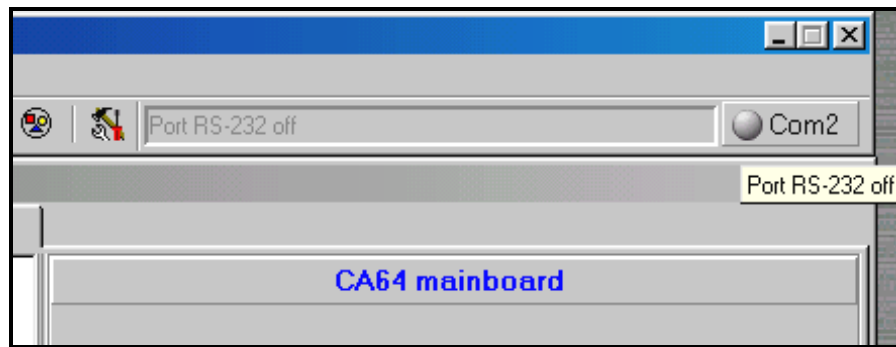


Fig. 2

- Launch the STARTER program in the control panel. This can be done in two ways.
  - 1) The basic method is to call the STARTER program from an LCD keypad. Enter the service code (service code ★) to access the user's menu and select →**Service mode** from the menu. While in this mode, find the item →**Restarts**, click on it and select the function →**Starter** in the submenu. The question: **Start starter ?** will appear on the display. Press the number **1** button to confirm activation of this function.
  - 2) Another way is the "pin start". Switch off the panel power supply (mains and battery), place a jumper across the pins with designation RESET (upper right portion of the board). Turn on the power supply and quickly remove the jumper. This must be done during the first second after turning the power supply on, otherwise the panel will enter its normal operation mode. Holding the jumper on for a longer time (until the LED indicator on the panel board at the phone line relay stops blinking) will cause entering the service mode, or activating the "Downloading" function (see CA-64 Installation Manual → Start Panel).

**Notes:**

- *Operation of the STARTER program in the programming mode is signaled by the message **STARTER 2.2 ready...** on the LCD keypad display. For 2 minutes from the moment of startup, the program will be waiting for the communication with the computer to be established, and then the control panel program will start. When the communication is established, the STARTER remains active until the command **Restart CA-64** is called in the **flash64** program, or for 2 minutes after communication with the computer is lost.*
  - *In case of a defective control panel program, the message „Load correct program into CA-64” appears on the LCD keypad display and the STARTER program automatically starts in the control panel (after power supply is turned on). The control panel status will remain unchanged until a correct version of software is programmed in FLASH memory, which requires the same procedure to be followed as that used for the replacement of software.*
- The next step is running the **flash64.exe** program in the computer, which can be done either from the DOS or from the WINDOWS level. It is convenient to place the **flash64.exe** (flash64e.exe) program and the **CA64.64** (CA64\_ENG.64) file in the same directory (see Fig. 3), as this will facilitate quick selection of the right file. However, the file can be selected from any directory on the computer disk.

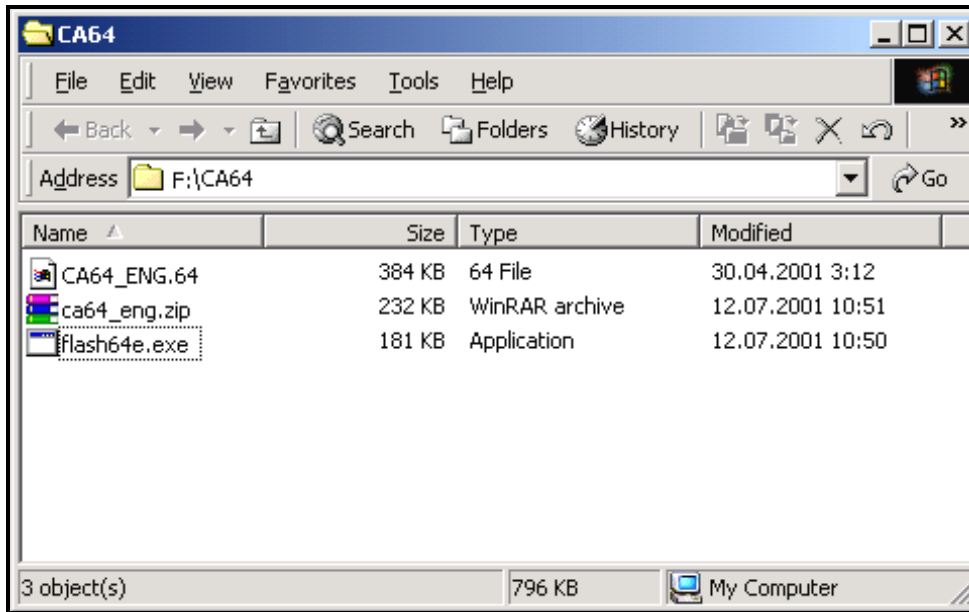


Fig. 3

- Having started the application, open the **Programming** menu (keys Alt+P) and select the *CA-64 FLASH Programming* function (key P or Enter↵):

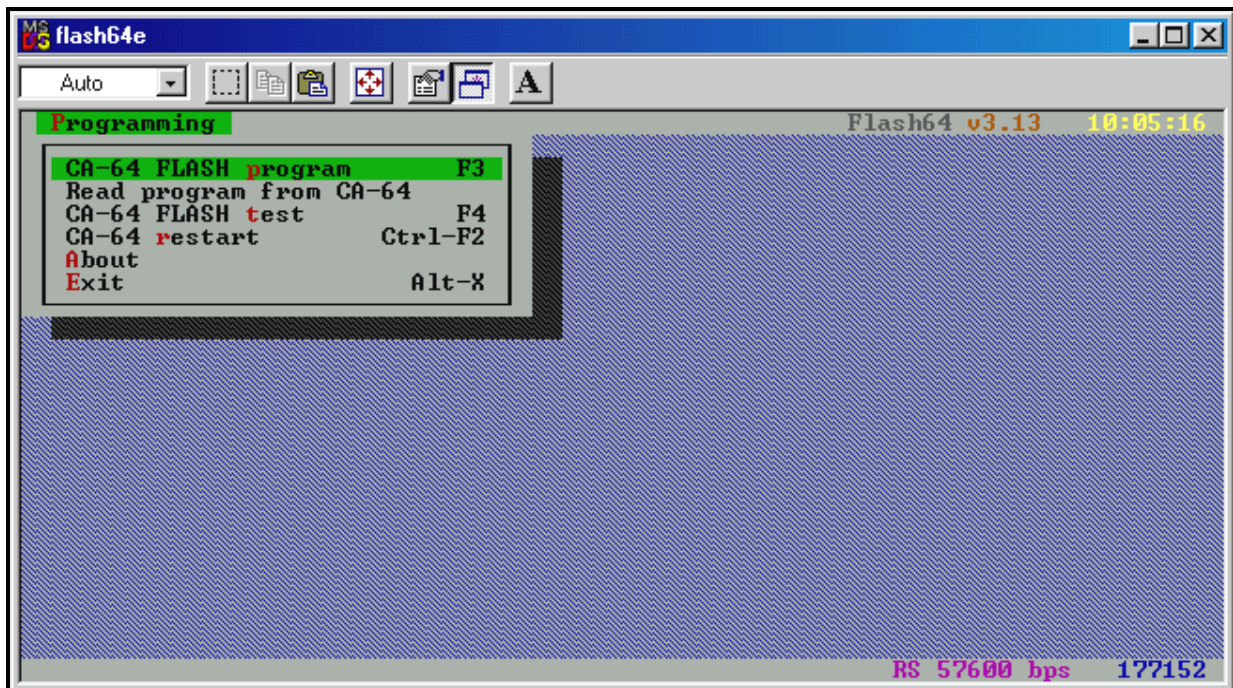


Fig 4

- Indicate the file with a new program for the panel. Press the Tab key to go over to the **File** segment: - see Fig. 5. Using the arrow keys ↑↓←→ and Enter ↵ move through the tree structure of directories and select the right file. The line in the lower portion of the screen shows description of the access path, thus providing information on the selected file source directory.

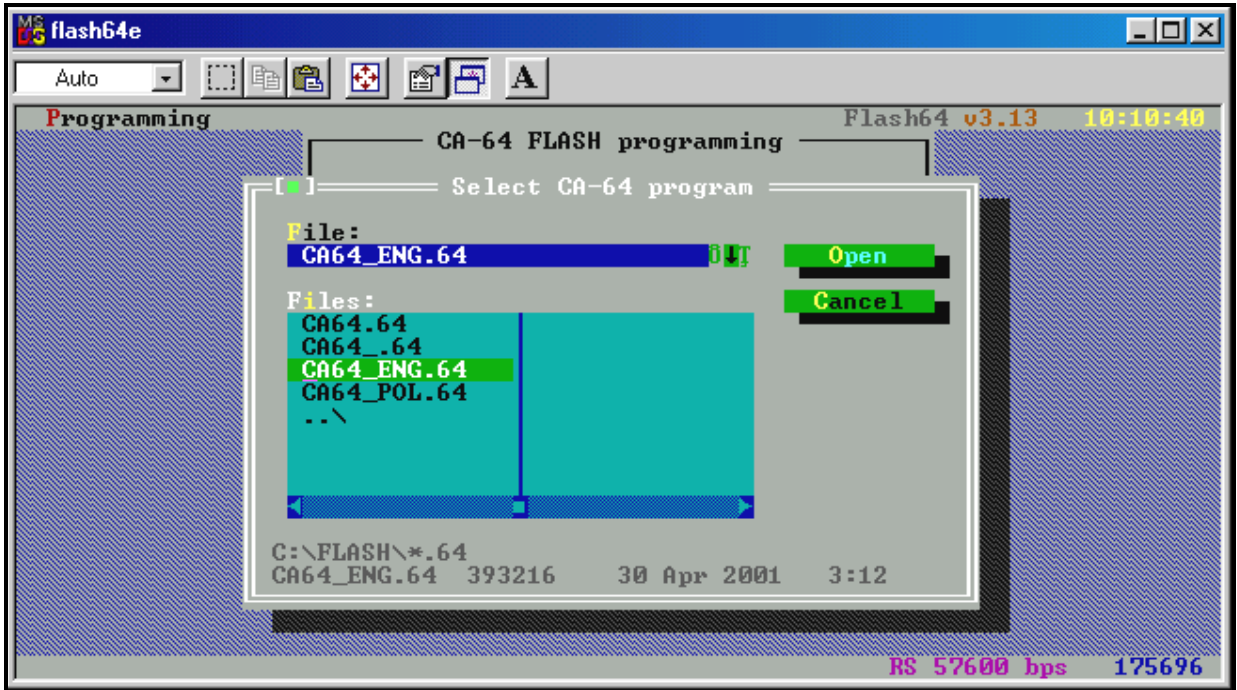


Fig. 5

- On finding (highlighting) the right file, press Enter ↵.
- Then, choose a suitable port through which communication with the alarm control panel will be effected – Fig. 6.

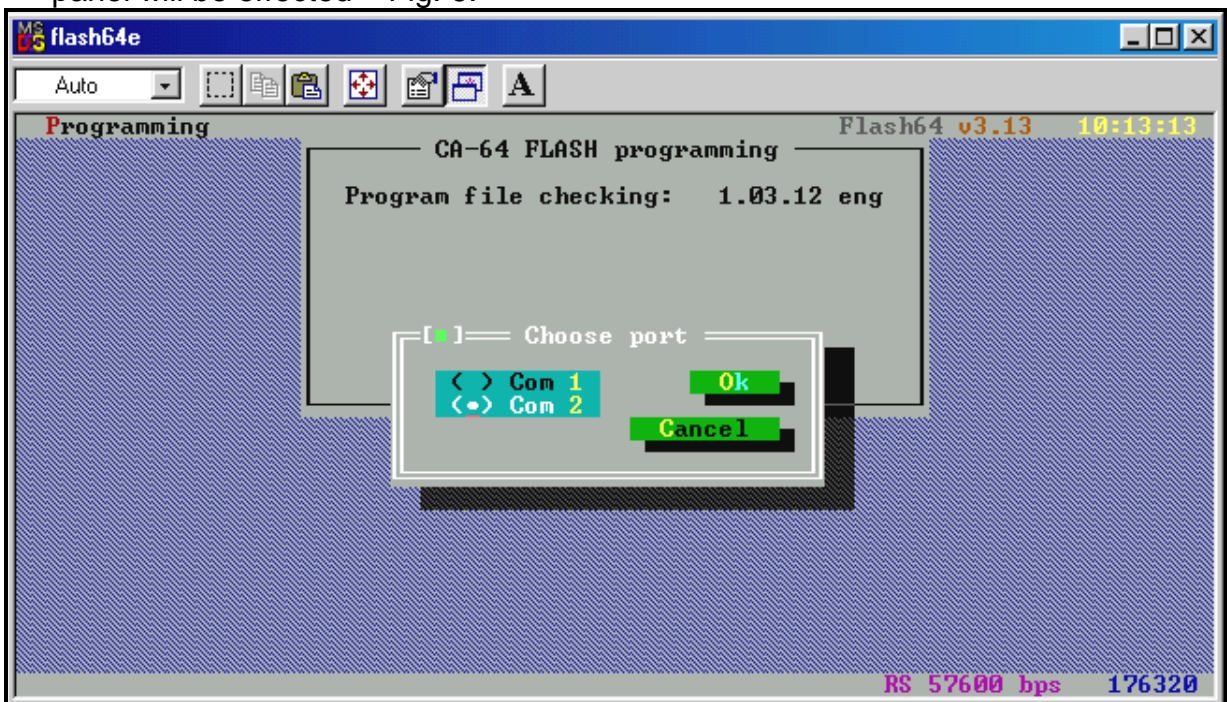


Fig. 6

Using the arrow buttons ↑↓, select a suitable port number and press Enter ↵. If the communication is correct, the program continues by checking the panel software version. First, it checks the STARTER, then the CA-64 program. If the STARTER version is older than the current one for **flash64** (or, possibly, faulty), the program will suggest replacing it with a newer (correct) version – Fig. 7.

In case the program in the control panel is an older version, the **flash64** will suggest replacing it with a newer one – the existing software version will then be deleted and the newer one installed instead (Fig. 7).

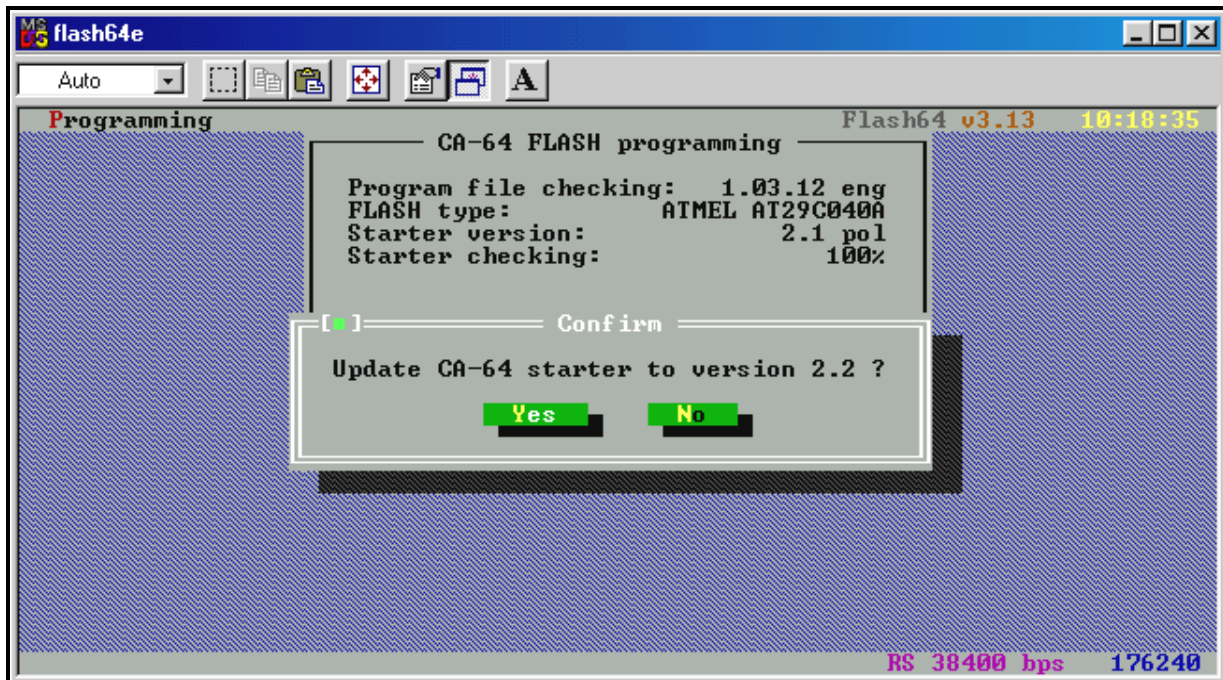


Fig. 7

After accepting the replacement, the **flash64** program will display two more warning messages.

1. „If you want to press “YES”, make sure that there will be no interrupt in AC and DC supply for CA-64.”
2. „For the updating time 1...8 outs will be switched off.”

If correct power supply is ensured and the outputs can be temporary deactivated, both messages may be successively confirmed.

Highlighting the YES button and pressing the Enter ↵ button initiates the process of software replacement.

- After STARTER replacement, the program will go on to replacing the essential software of the control panel – it will read the software version from the panel and compare it with the version of program contained in the indicated file. Confirm the message with YES button (Fig. 8) to initiate the procedure of deleting, programming and verification of the FLASH memory contents.

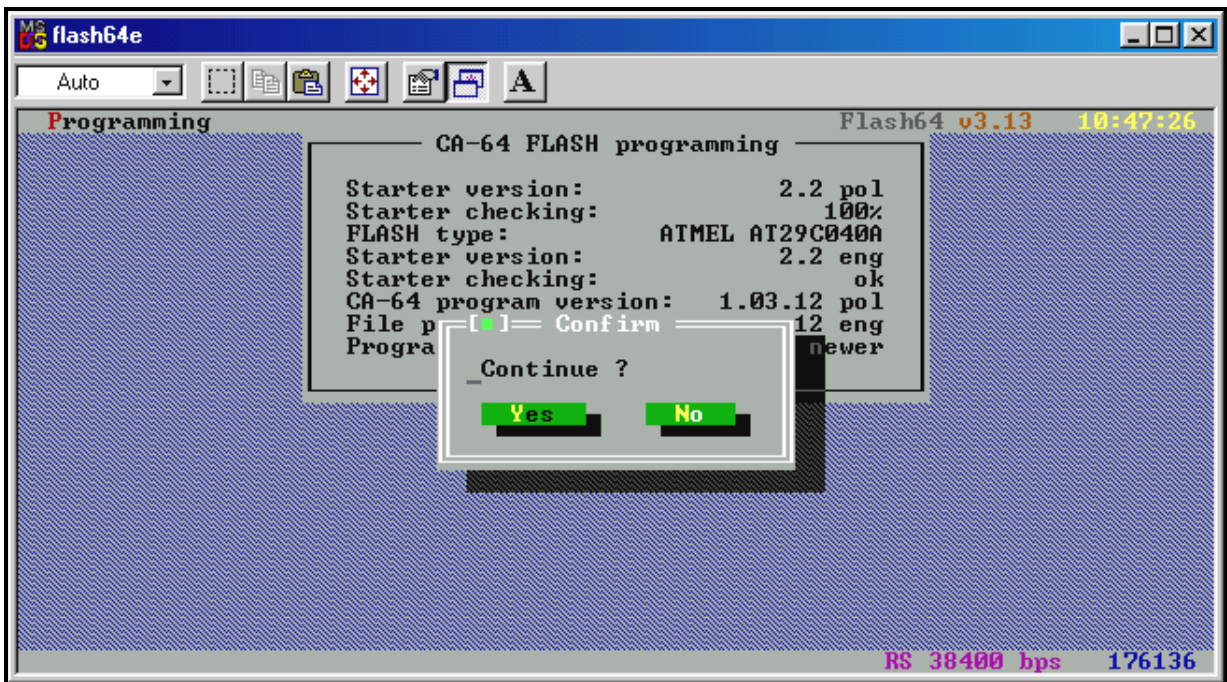


Fig. 8

The following situations may also occur:

- Version of the program in the file is older than that of the control panel program.
- Version of the control panel program is the same as the file contents – see Fig. 9.

In such situations, decision on the control panel software replacement will be taken by service personnel.

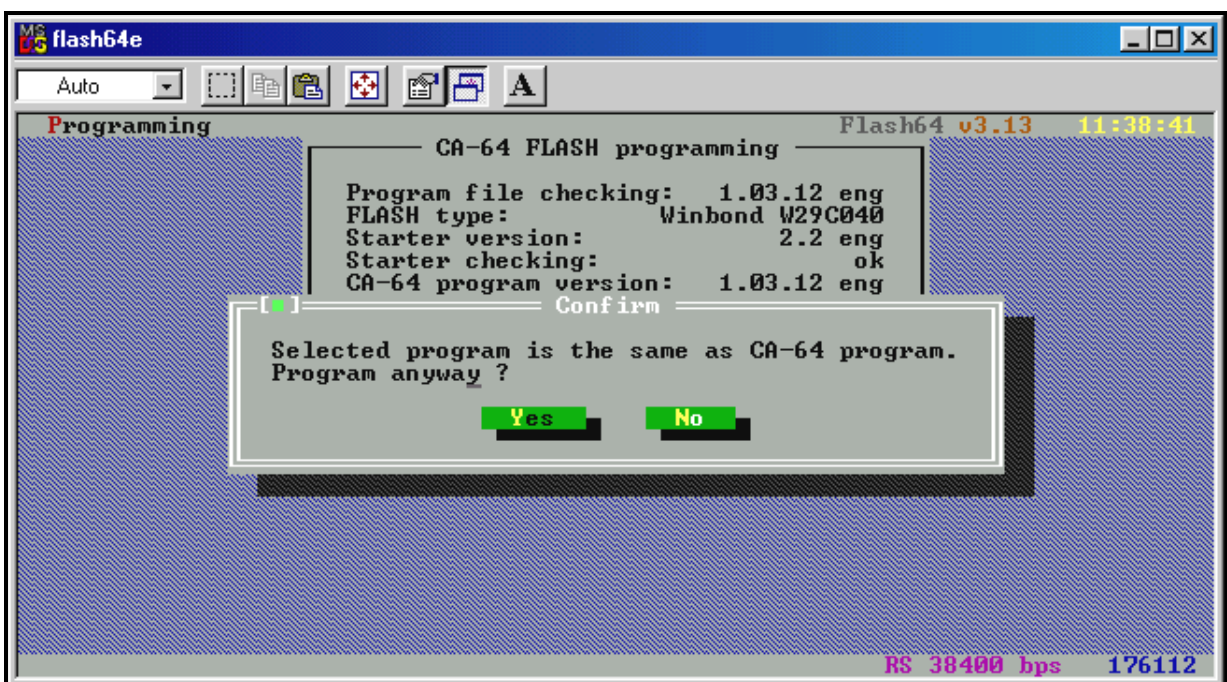


Fig. 9



After correct installation of the program, a message on completing the update procedure is displayed – see Fig. 10.

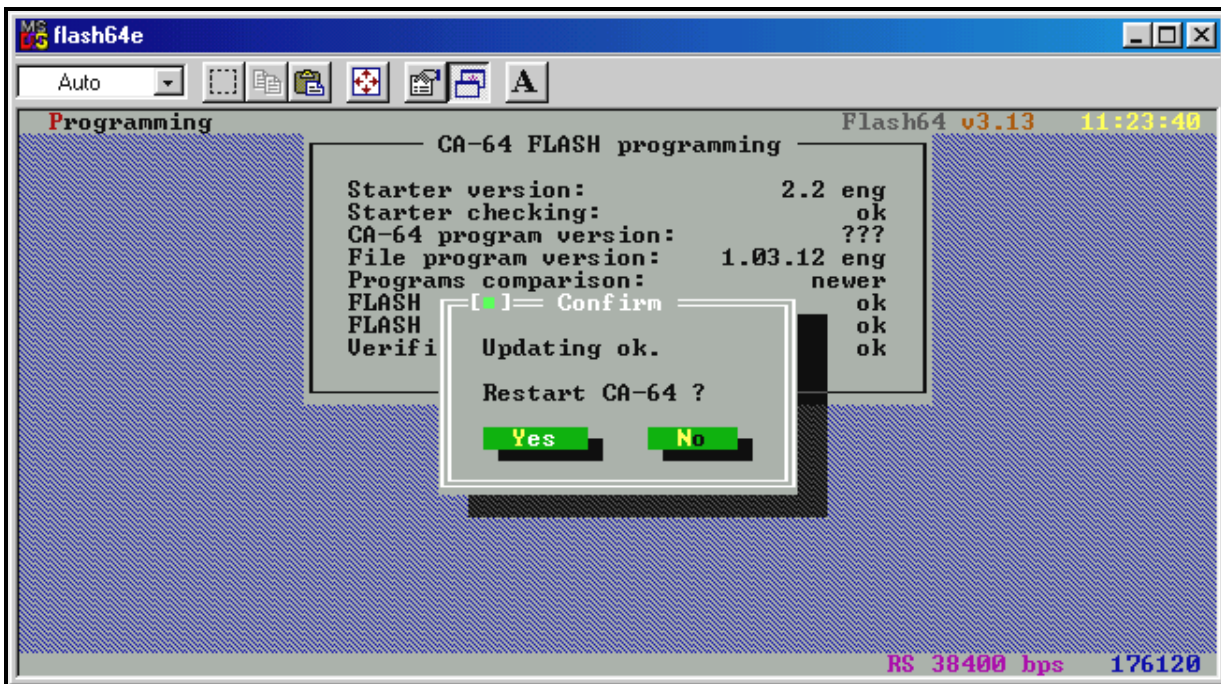


Fig. 10

- Next, end the STARTER program operation in the control panel. Accept the message with the YES button to restore normal operation mode of the panel. Control panel restart message will appear on the display.

The STARTER operation can also be terminated by using the function **Restart CA-64** (keys: Ctrl+F2) from the menu **Programming** (Alt+P).

Another way of causing the restart is to momentarily turn off and on the control panel power supply (mains and battery).

- The next step is to terminate the **flash64** program operation by pressing Enter ↵, and then Alt+X.

## **OTHER FUNCTIONS OF FLASH64 PROGRAM**

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- **Reading the program from CA-64** This function allows the current version of the control panel program to be saved in a separate file. Thus, the installer will have an option – in case the new version is, for whatever reason, unsatisfactory or not working properly – to restore the previous version of the program.
- **Test CA-64 FLASH** This function checks the control panel program for compliance with a selected file in the computer resources.

In case any trouble occurs during replacement of the FLASH memory software, please contact the Manufacturer's engineering department. Making a call, remember to give us the version of keypad(s) and/or control panel software. The data in question will appear on the LCD display immediately after restarting the system (as described above in this manual). Designations of the software version are displayed also after the keypad processor is restarted. The restart can be forced through simultaneously depressing the keys  $\uparrow\downarrow$  of the LCD keypad and holding them down for approx. 40 s.

You can also read out the control panel software version by means of the user's functions. To do this, open the user's menu (CODE \*), select the function **→Tests**, and, in the function submenu, the item **→Panel version**. The number of software version will appear on the keypad display.

Description of the keypad software version can be found on the sticker placed on the PC board inside the keypad enclosure.

SATEL sp. z o.o.  
ul. Schuberta 79  
80-172 Gdańsk  
POLAND  
tel. + 48 58 320 94 00  
info@satel.pl  
www.satel.pl