

FlashMagic Setup and Use Instructions

First Time Use

- A. Install the FlashMagic application. It's advisable to create a short-cut on your desktop to easily access the program in the future. This will allow you to open and close it quickly (which you may have to do several times!)
- B. Plug in the communications cable, using the Cybex flash programming adapter and cable.
- C. Open the FlashMagic application.
- D. At the top of the program window, there are menu tabs. Select the "options" tab, then select the "Advanced Options" tab. A menu box will open. Select the "Hardware Config" tab, and the "Use DTR to control RST" will be checked. Uncheck the box and press the "OK" button to save
- E. FlashMagic will be blank the first time you use it, requiring you to set up all of the information in four numbered sections. If it gives you any error messages, just click 'Cancel' to remove them.

Section 1: Setup

COM Port: Select the available Serial communications port on your PC.

Baud Rate: Select **57600**

Device: Older products use **89C51RD+**, newer products use **89V51RD2**

(You can tell the new processor as it powers up with the blinking heart regardless of the Programming Adapter being plugged in.)

Oscillator Freq. (MHz): FlashMagic will automatically select the correct freq.

Section 2: Memory locations

The locations are pre-selected, so don't change these.

Uncheck the 'Erase all Flash'

Check 'Erase blocks used by Hex File'

Section 3: Hex File (software)

Use the 'Browse' button to browse to the location of the new code you want to install. This is a HEX file or .hex.

Section 4: Misc.

ENSURE ALL BOXES ARE EMPTY (unselect any that are checked)

(FlashMagic has a habit of selecting the '6 clks/cycle' check box. **Uncheck it!**)

Section 5: Start / Cancel

- For OLD Processor: Turn the product on and/or start pedaling BEFORE hitting FlashMagic's Start button. Product display will be blank.
- For NEW Processor: Hit the FlashMagic Start button. It will prompt you with a small dialog box to reset the device. Turn the product on and/or start pedaling. Product display will be blank.

FlashMagic Setup and Use Instructions (Continued)

Normal Operation

In the lower left corner, you should see the text 'Erasing' and maybe a block number 0-4. After that it should show 'Programming 0x_____' and be quickly cycling through all of the memory locations needed to program. If it only shows 'Programming...' and no indication of the memory locations being programmed, you will have to reset the product and/or check your connections. Start over. Programming takes 30-90 seconds.

Subsequent Uses

FlashMagic remembers the last setup and will attempt to connect to the product immediately. If it doesn't see what device it is set up for, it will give you an error. Simply Cancel through the error. At this point, you can proceed as listed above, ensuring it is set up correctly for the display you are programming.

Troubleshooting (assumes something isn't working!)

- Ensure the display on the Treadmill / Bike / Arc / Stepper powers up normally when the computer is not plugged in to it. You can't program the board if it doesn't have power! Remember, you have to pedal the bike to power it up or plug in the optional power supply.
- Attempt this on another computer or select another COM port.
- The usual reflected interference issues to the IR transceiver next to the dot matrix will still exist. Cover this with something non-reflective (like the back of a mouse pad) if you are in bright light situations.
- Programming should only take 30-90 seconds. If it takes more than two minutes, start over. Reset power on the product (or wait for the flywheel to coast to a stop on the bike) before attempting another shot at it.
- If the board programmed successfully, but won't power up, you may have chosen the wrong processor! Verify the processor and re-program the board correctly.
- On the P89C51RD2 boards, it may be necessary to resort to the old WinISP programming suite and instructions. This is a last resort, but may be helpful.
- You can also choose to have FlashMagic erase the entire part by selecting the box in the upper right corner marked 'Erase All Flash'. This will wipe the entire processor clean, ensuring no bad data or corrupted data exists. It may take longer to process the flash programming this way.

Reference:

Flash Magic is a free program, downloadable here:

<http://www.esacademy.com/software/flashmagic/FlashMagic.exe>

Old WinISP programming suite for the P89C51RD2 and older processors is no longer available from Philips. If you don't have this program, and need to use it in lieu of the newer FlashMagic, please contact Cybex.

Contact Cybex for the latest software files for your equipment: U.S.A. - 508-533-4300