

GIE 8051 Starter Kit

User Manual

Content

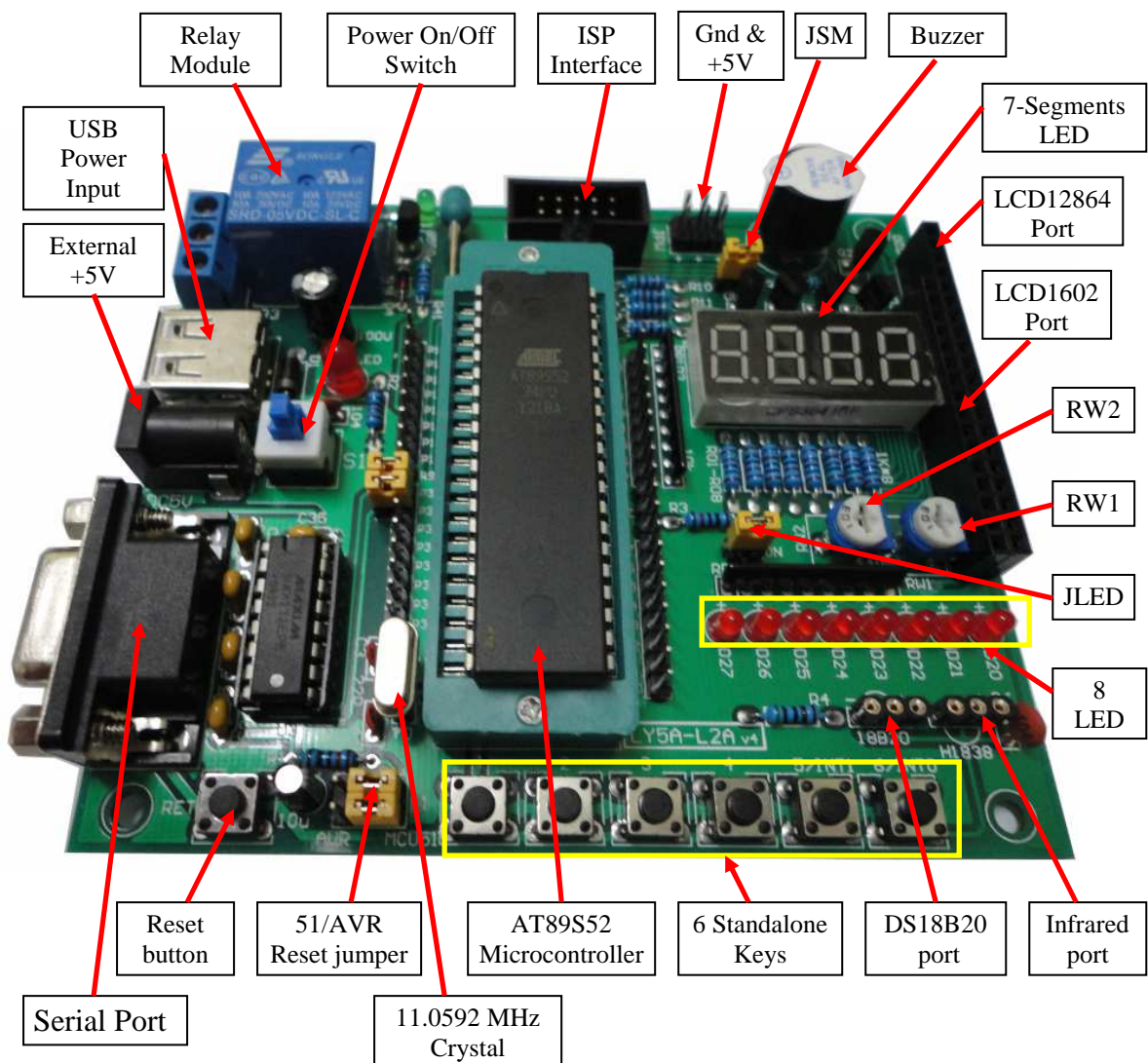
Features	3
Function Block.....	3
Development Setup.....	4
Jumper selection.....	4
Required Software	5
Install USBasp Programmer Driver	5
Install Keil C51 (Evaluation version)	7
AT89S52 IC Programming Software – ProgIsp	7
Kit Contents	8
Warranty	8

8051 Starter Kit

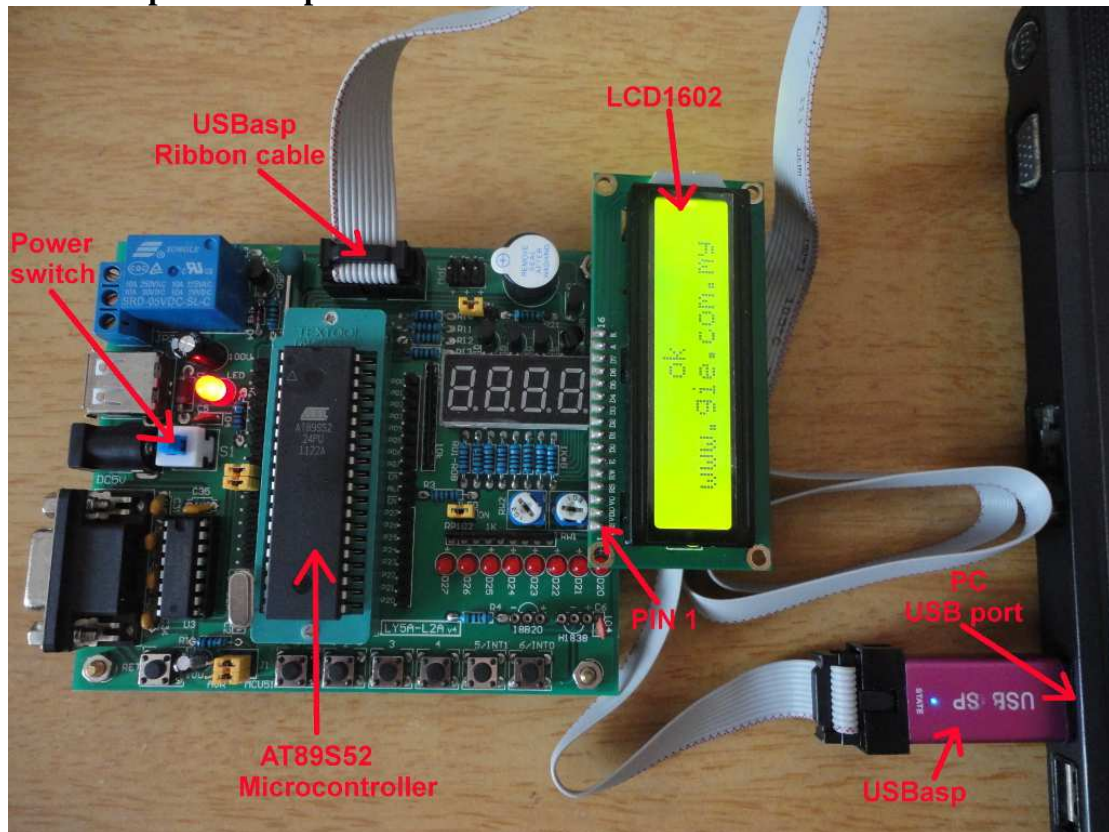
1. Features

- a.) Support AT89S51, AT89S52 and STC52.
- b.) Support ATmega16, ATmega32 AVR through converter board.
- c.) Operating voltage: +5V, it can supply from USB port or external +5V adapter.
- d.) Default crystal is 11.0592MHz, it can be changed easily.
- e.) Header for +5V and Gnd points are available;
- f.) All I/O are available through header.

2. Function Block



3. Development Setup



4. Jumper selection

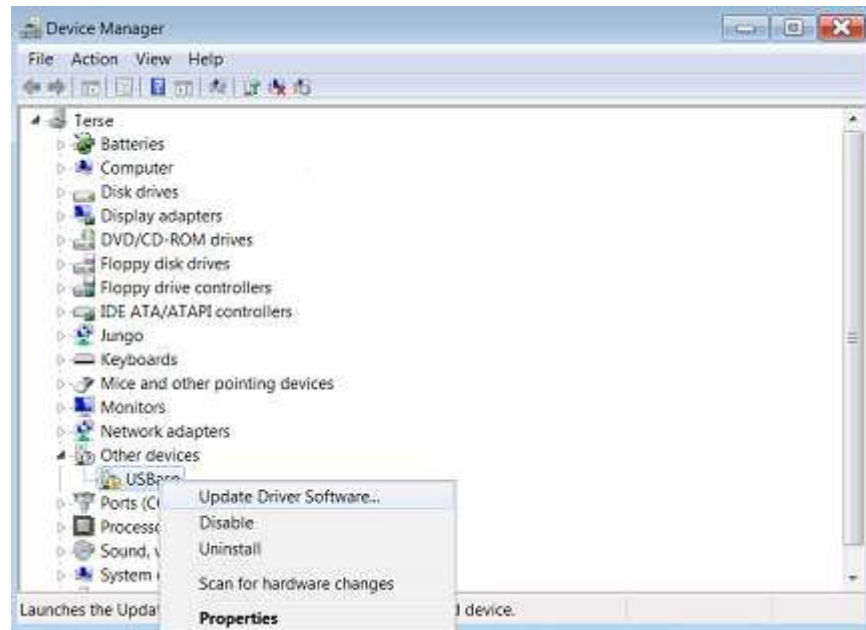
Jumper	Function Description
JLED	For 8 LEDs
JSM	For 4 digits 7-Segments LED
P30, P31	For serial port
J1	Reset selection For 8051 MCU – Select MCU51 For AVR MCU – Select AVR

- a.) When using LED, please install JLED.
- b.) When using 7-Segment LED, please install JSM.
- c.) When using LCD1602/LCD12864, please remove jumper JSM.
- d.) When using LCD1602/LCD12864, if found no display on LCD, please adjust variable resistor RW1 for LCD12864; RW2 for LCD1602.
- e.) When using USBasp to download the code to the MCU, it's **NOT** require to provide extra +5V (the power will supply by USBasp).
- f.) Please remove LCD1602/LCD12864 when using USBasp to download the code to the MCU.

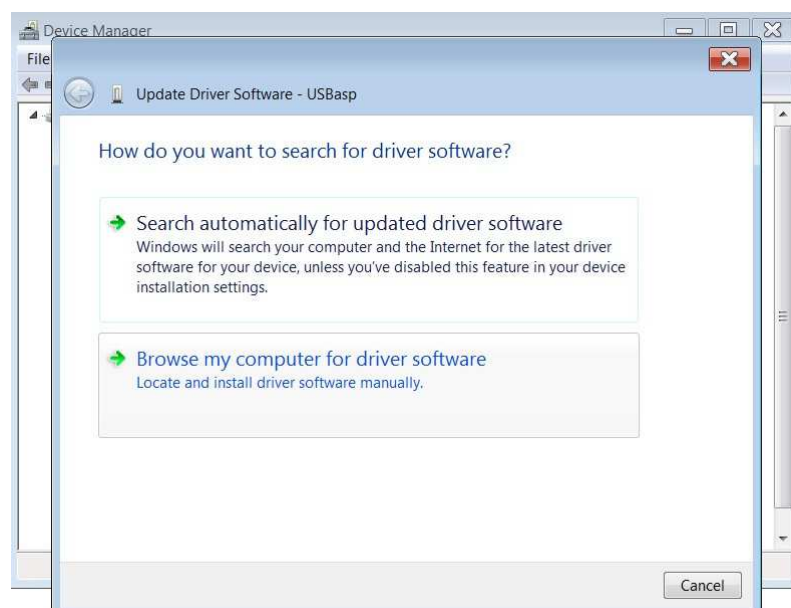
5. Required Software

a.) Install USBasp Programmer Driver

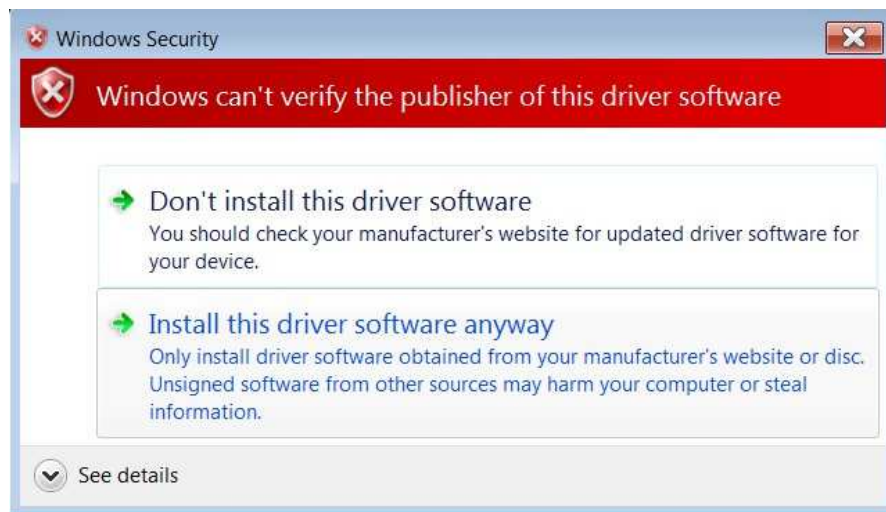
- (i) Insert the USBasp Programmer into an available USB port in your PC.
- (ii) Go into the device manager (Control panel → System) and find the entry for the USBasp and it should be displayed with a yellow alert icon on it. Then right click on the device and select “Update Driver Software”.



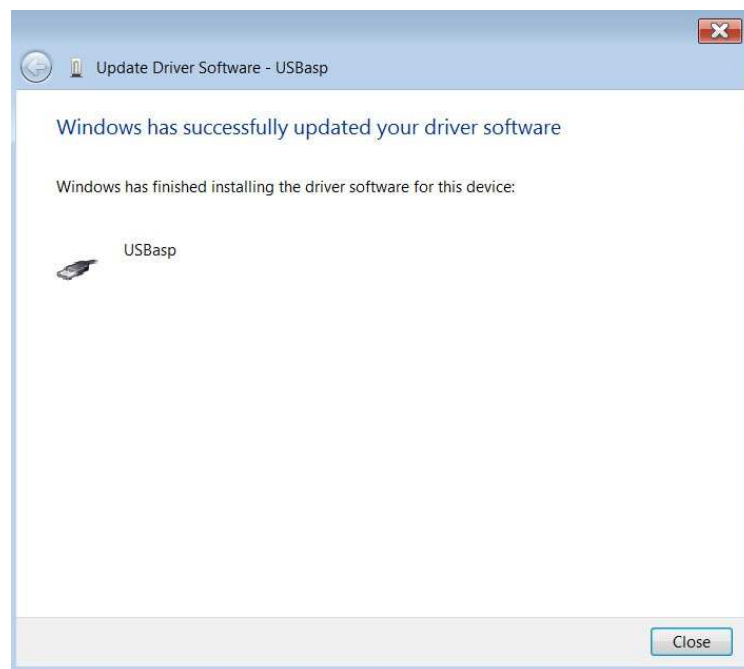
- (iii) After you left click the ‘Update Driver Software”, it will come out with “How do you want to search for driver software?” Then choose the second one which is “Browse my computer for driver software” and click into it.



- (iv) After that, you will see the screen which will prompt out “Browse for driver software on your computer”. In this step, you need to select the folder where you the driver files are (i.e. xxx\8051 Starter Kit\USB Driver\USBasp Driver\libusb_1.2.4.0\x86) then click “Next”.
- (v) Next, the windows will prompt out a “Windows Security” with a red warning dialog. Do not worry about it, and just click “Install this driver software anyway” and the driver will install.



- (vi) After click it, the next step is to wait for a few seconds to let your computer to process the installation of driver software.
- (vii) Now, you can use the USBasp to do the programming for microcontroller.

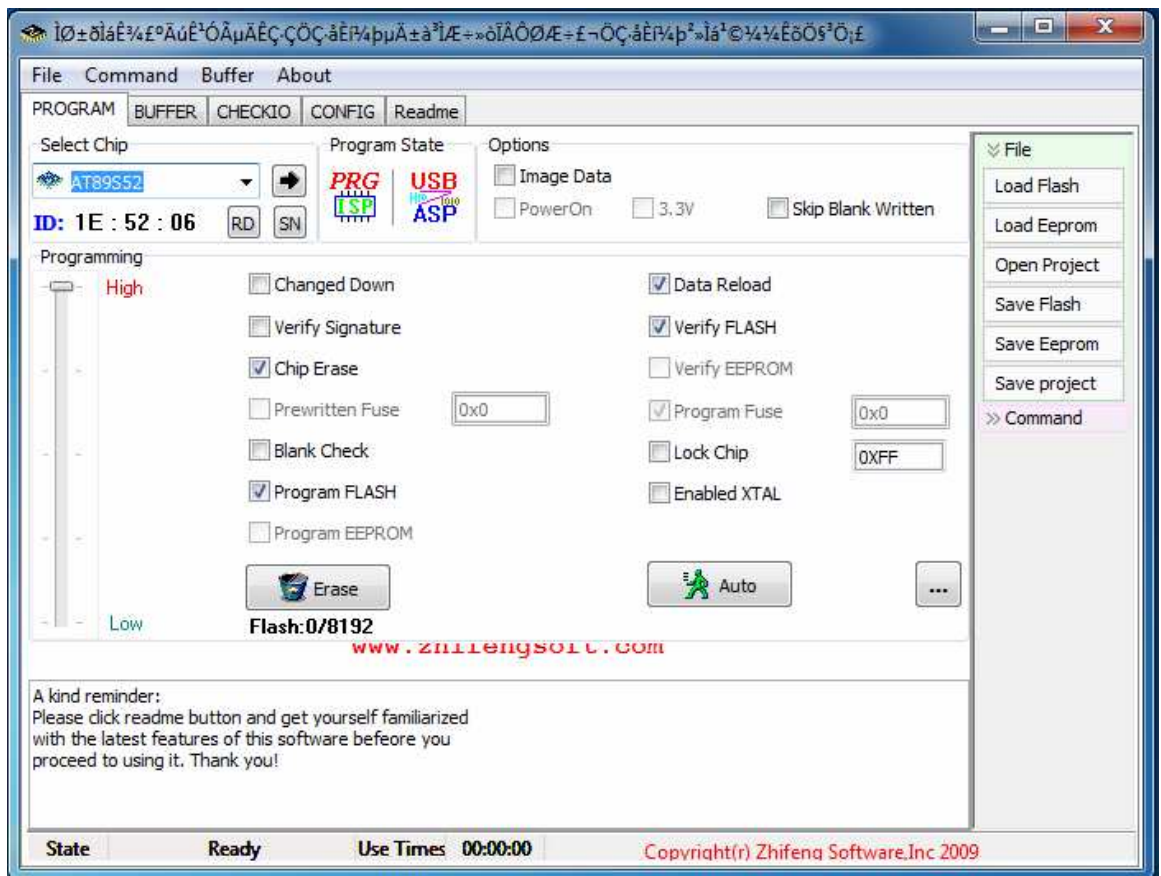


b.) Install Keil C51 (Evaluation version)
Run xxx\8051 Starter Kit\Development Software\c51v905.exe.

c.) AT89S52 IC Programming Software – ProgIsp
This software not require to install, it located at xxx\8051 Starter Kit\Programmer Software And Tools\ProgIsp\progisp.exe.

How to use :

- (i) Plug in USBasp to an available USB port in your PC and connect to the Starter Kit. (Refer to Development Setup)
- (ii) Run progisp.exe.
- (iii) Select AT89S52 under “Select Chip”.
- (iv) Load program file, click Menu → File → Load Flash → xxx.hex.
- (v) Click ‘Auto’ button.
- (vi) Done.



6. Kit Contents

- a.) 8051 Starter Board x1
- b.) Jumper wires x1
- c.) Standoff x4
- d.) USB cable x1
- e.) USBasp x1

7. Warranty

- a.) Product warranty is valid for 6 months.
- b.) Warranty is only applies to manufacturing defect.
- c.) Damage caused by improper use is not cover under warranty.
- d.) Warranty does not cover freight cost for both ways.