
HOW TO NOTES

Helpful hints to get the most out of your ELF

BASIC CONFIGURATION FOR THE ELF – 4 channel chaser and 4 strands of lights flashing.

1. INTRODUCTION

This How To Note describes how to set up the hardware and configure the software to allow the ELF to control up to eight different strands of lights. It describes how to use the *4 channel chaser* and the *Flasher* effect. Other applications notes will describe more advanced effects.

2. HARDWARE

The ELF can control up to eight different strands of lights. Each strand of lights connects to a plug. Each plug connects into a channel. Before the strands of lights can plug into the ELF controller box, the wiring needs to be modified. The process is outlined below.

WARNING: DO NOT have the lights plugged into the 240V mains during the following.

- 2.1 Two strands of wire come from the LOW voltage side of the transformer to the lights. Select a point along the wire approximately 30 cm from the transformer. This is where the plug to the ELF controller box will be connected.
- 2.2 Separate and cut one of the two wires as shown in Figure 1.

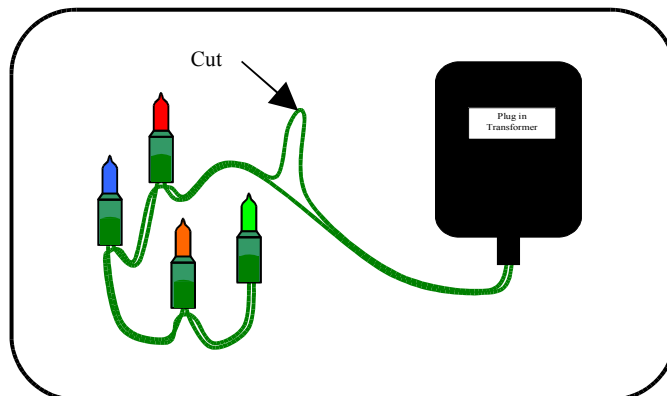
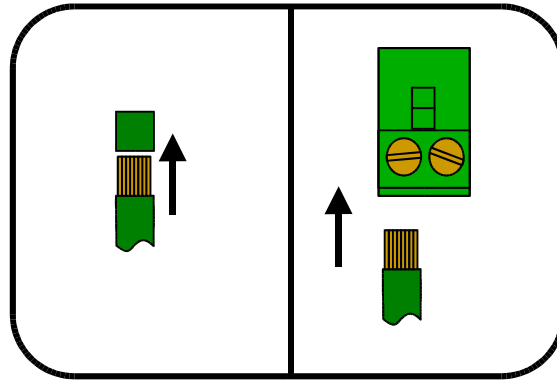


Figure 1

- 2.3 Strip approximately 5mm of the plastic insulation from each of the end of the wire that was cut. This is shown in Figure 2a.
- 2.4 Insert the wire that is still connected to the transformer into the left side of one of the orange connectors supplied with the ELF. This is shown in Figure 2b.



(a) Figure 2 (b)

- 2.5 Using a screwdriver, turn the screw on top of the connector to clamp the wire in place.
- 2.6 Repeat steps 2.4 & 2.5 for the other wire into the other hole in the connector. The finished result is shown in Figure 3.

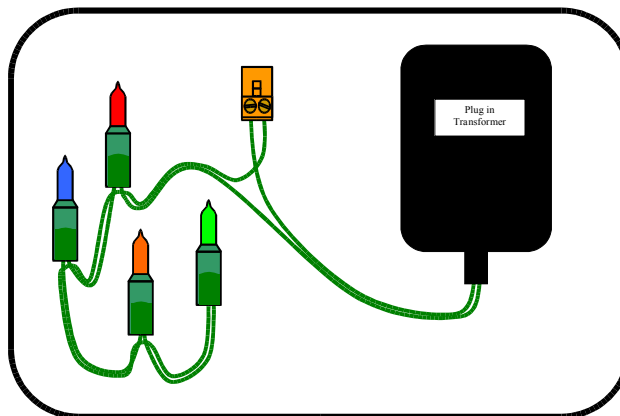


Figure 3

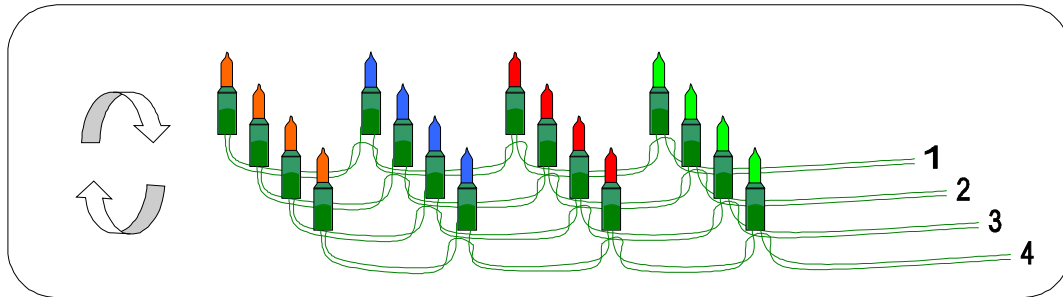
- 2.7 Plug the finished connector into one of the channels on the ELF controller box.
- 2.8 Repeat steps 2.1 to 2.7 for each set of lights that are to be controlled.

To program the ELF controller box, disconnect the light strands from the box and take the box, the power supply and the communications lead to a convenient location next to the computer with the ELF software installed.

Note: the lights can be left connected while the ELF controller box is programmed.

3. Creating Chasing Lights

This application note describes how to create an effect of lights chasing one another. It requires 4 strands of lights. The lights need to be twisted together as shown below.



4. Software

The ELF software that comes with the product is to be installed on a computer as per the instruction manual. The latest version of the software can be downloaded from www.ycsys.com.au. The software is used to program the ELF controller with the light sequence and the flash delay for each channel. The ELF controller connects to the computer via the standard serial port.

- 4.1 Connect power to the ELF controller box.
- 4.2 Connect the ELF controller box to the computer with the supplied lead.
- 4.3 Start the ELF software program on the computer.
- 4.4 Before the configuration can be sent to the ELF controller box, the communications port needs to be set up. Click on the picture of the spanner on the main screen and the **Serial Port Config** box will appear. Choose the **Serial Port** value. This is the port that the cable is plugged in to. It is often referred to as a com port and is usually COM1 or COM2. It is selected by pressing the up or down arrows to the right of the box.

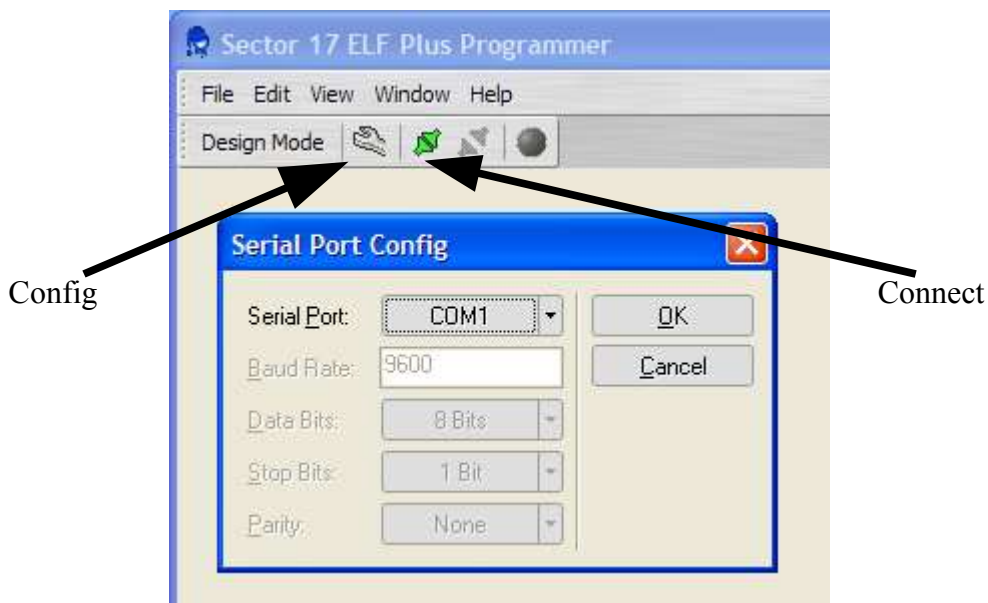


Figure 4

- 4.5 When the **Serial Port Config** is complete, press OK.
- 4.6 After the port is configured, you can 'connect' to the ELF controller box. Click **File** (on the menu bar), then **Connect** or the button shown in Figure 4. The screen is shown in figure 5. The black numbers in the boxes above the green dots are the channel numbers and correspond to the channels on the ELF controller box. The grey rectangles slide up and down and change the flash delay. The actual number is shown in the white boxes at the bottom of the sliders. The dots above the sliders represent a strand of lights and will flash at the chosen flash delay when the *simulator mode* is selected.

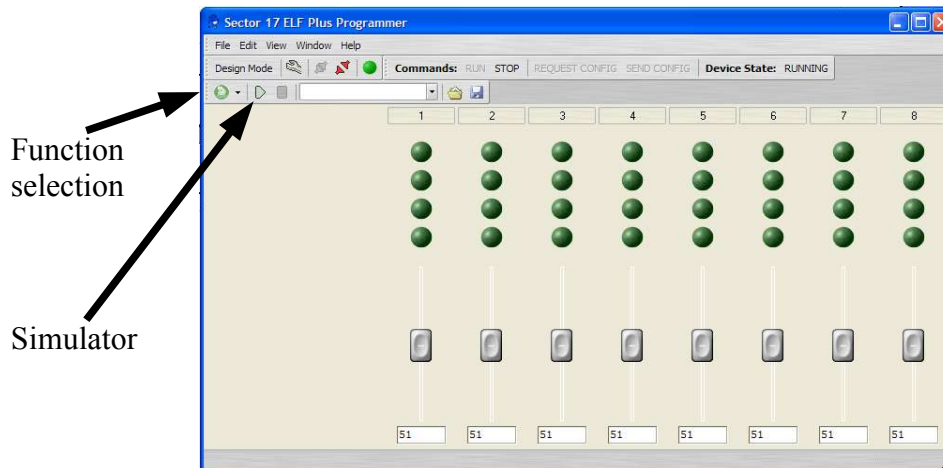


Figure 5

- 4.7 The program is in *Design Mode*, as shown in the top left hand corner. To set up a 4 channel chaser and a 4 channel flasher unit, using the mouse, click on the **Function selection** button as shown in Figure 5. From the drop down box, choose the **4 Channel Chaser** effect. In the left hand window pane, *outputs 1 to 4* will be allocated to *channels 1 to 4*. Click on the function selection button again and select the **Flasher** effect. A box with the word Flasher will appear under the 4 channel chaser effect and the word *output1* and *Channel 5* beneath it, appear. Channel 5 has now been assigned the effect of Flasher. Continue to select the Flasher effect 3 more times to allocate channels 6 to 8.
- 4.8 The flash rates for the 4 channel chaser are locked together. If one is changed, all 4 get changed. The other 4 Flasher channels can be changed independantly. Set the rates as required.
- 4.9 To give and idea of the flash rates that have been chosen for each channel, a simulator is provided. Click on the *Simulator Start* button as shown in Figure 5 and the "lights" will start flashing. Adjust the rates as required.
- 4.10 To save the effect into the ELF controller box, click on the **Send Config** button on the main menu.

The programming is now complete.

Turn off the power to the ELF controller box and disconnect it from the computer. The configuration is stored in the ELF controller box and doesn't need power to be connected to remember the settings. Take the ELF back and plug in the strands of lights. Turn on the power to the lights and the ELF controller box and the lights will flash in the configuration that was set up with the ELF software.

If a change is required, simply follow the procedure in step 4.1 to 4.3 and 4.6. After step 4.6 select **REQUEST CONFIG** from the menu bar. The current configuration in the ELF controller box will be displayed on the screen. Changes can be made. For example, the flash delay on channel 5 may need to be increased to 60. Move the slider or type in the number. Once the changes have been made, simply select **SEND CONFIG** from the main menu and then move the ELF controller box back and plug in the lights.

For full instructions on using the program, select *Help* from the menu bar at the top.

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