

Background Information

The FairStart Timer is the result of a collaboration between Bruce Lambert (2003 Fighter Kite World Cup Champion) and Larry Green. Bruce envisioned a device to make North American Line Touch fighter kite competitions completely fair to both the fliers and the judges. The only way to achieve this was to take the decision making process away from the judges and make it completely random.

Bruce approached Larry (a friend of a friend, kite builder/flier and electronic experimenter) to ask if such a device was feasible. After a lot of research and many hours 'burning the midnight oil' Larry designed both the physical electronic circuit and the software contained within the chip. Thanks must be given to various 'online' electronics and programming forums for the assistance provided when mental 'stumbling blocks' were encountered.

The result is a device that both parties firmly believe is the **only** way to have a totally fair start to North American Line Touch fighter kite competitions. The algorithms used in the program ensure that the results are truly random and the device has been proved to be truly random in more than 500 test operations. Tests of the audio output have shown that the device can be heard more than 50 feet away.

We wish you many 'fair starts' in all your future North American Line Touch competitions!

Fair winds and big grins,

Bruce Lambert & Larry Green

DISCLAIMER

The FairStart is a non-profit product. It is sold at a cost equal to its parts and assembly cost. There is no profit or financial gain to anyone from the sale of FairStart. Although Larry and I will help to resolve any FairStart product failures or malfunctions, when you purchase FairStart you are purchasing it 'as is' and agreeing to the following legal disclaimer:

FairStart has **NO** warranty, expressed or implied, for the FairStart unit, its suitability, usability or any results from using it. When purchasing FairStart, the purchaser accepts all responsibility and liability for any and all issues that arise when a purchaser uses FairStart and all people the purchaser allows to operate the FairStart.

The purchaser further agrees that if a dispute with the FairStart supplier/manufacturer is irresolvable, mediation is the only and complete means for settling such a dispute.

Bruce Lambert

© Bruce Lambert/Larry Green 2004



Introduction

The FairStart Timer is designed to produce the **only** truly fair start to North American Line Touch fighter kite competitions. It will generate a truly random delay time and a random selection of top or bottom point to be flown. There are four maximum delay times available with a 30 second maximum being the default value. The push buttons are all 'momentary' type and just require a quick 'press and release' to operate.

Note: Do not continue to hold down any button once activated as the control system may 're-trigger' on completion of its current task.

Battery Installation

To install the batteries proceed as follows:

- 1) Remove the four cover screws located in the corners of the box.
- 2) Insert four 'AA' batteries into the battery holder observing the correct polarity as shown on the case.

Note: The batteries can be either alkaline, NiCad or NiMH but **not** a mixture of types.

- 3) Replace the cover screws taking care not to over tighten.

Selecting The Maximum Delay Time

The FairStart Timer has four user selectable delay times. To select your preferred delay time follow the steps below.

10 Second Maximum Delay

Hold down the <Top> push button and slide the <Off/On> switch to the right. Release the push button as soon as you hear a single beep. The delay time is now set to a maximum of 10 seconds.

20 Second Maximum Delay

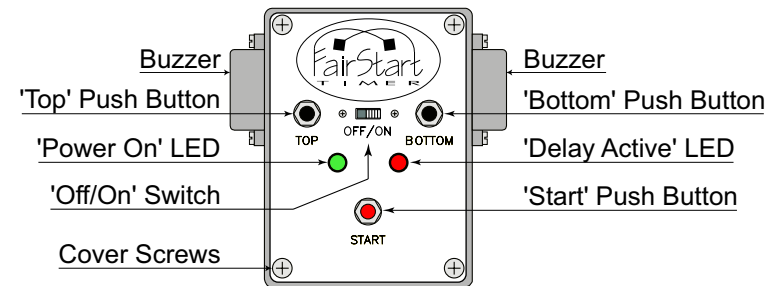
Hold down the <Bottom> push button and slide the <Off/On> switch to the right. Release the push button as soon as you hear a single beep. The delay time is now set to a maximum of 20 seconds.

30 Second Maximum Delay

Slide the <Off/On> switch to the right. This is the default timing and the device will reset to this value on every power up unless one of the push buttons are held down.

40 Second Maximum Delay

Hold down the <Start> push button and slide the <Off/On> switch to the right. Release the push button as soon as you hear a single beep. The delay time is now set to a maximum of 40 seconds.



Operation

Once the maximum delay time has been selected the unit is ready for operation. The competitors will need to be familiar with the two sounds produced in order to be able to react on hearing them in competition. Pressing and releasing the <Top> push button will play the 'Top' sound (a continuous tone). Pressing and releasing the <Bottom> push button will play the 'Bottom' sound (a rapid series of beeps).

Note: An easy way to remember which sound relates to which discipline is to remember 'Tone = Top' and 'Beep = Bottom'.

Note: In some cases a flier may have difficulty hearing the tones due to a volume or frequency hearing impairment. In these situations it is advisable for the 'Judge' to call 'Top' or 'Bottom' as the relevant sound is activated.

When the competitors are familiar with the sounds the competition can start. Once the fliers have positioned their kites in a neutral position the judge can press the <Start> push button and the FairStart Timer will take care of the rest!

Note: The FairStart Timer is designed to be operated when held horizontally, push buttons to the top and with the buzzers pointing at the two fliers so that they receive the maximum volume from the device.

Note: Do not forget to turn the device off once the contest is completed in order to conserve battery life.