

## Introduction

Thanks for purchasing Spacewriter LTC123, the latest advanced generation of 'Light Trace Communicator'.

Simply follow the instructions below to see Words, Messages, and special effects appear in mid air before your eyes!

LTC123 is fully programmable and can display Messages in either Red, Green or Yellow. There are four Message Banks each capable of holding up to 28 Characters, enough for many Words. There is a new 'SignLine' mode, providing continuous streaming effects, there is a range of output speeds, so that Night-Rider type chase effects can also be produced.


A range of commonly used Western European characters as well Special Effects are included in the LTC123's Character Set.

Editing Messages is easy using the LCD display and tactile buttons which beep and click as they are pressed. ENJOY!

## LTC123 Talks to You

One beep with flash of Green LEDs means 'On / Yes'.  
Two beeps with two flashes of Red LEDs means 'Off / No'.

## Powering On

Press and hold down the  button for about two seconds. LTC123 beeps and shows a flash of Green LEDs.

## Seeing the Message


Sweep the LTC123 left to right to see a Word. A good sweep span is about 300mm. The sweep time left to right and back to left should be about 1 second. Possible result is shown picture left.




## Reversed?

If the Word is reversed, press and hold these two buttons  together until you get one beep and flash of Green LEDs. The Word will now read correctly. You can toggle Reverse On / Off by pressing the same two buttons again.



## Advancing to the next Word of the Message

To Advance to the next Word of the Message, press and release the  button.


## Auto Word Advance

Press and hold these two buttons  to toggle the Auto Word Advance On / Off.  
When Auto Word Advance is On (One beep and flash of Green LEDs) the LTC123 automatically advances the Word every two seconds.


## Message Select Mode

To select a different Message, press the  button enter Message Select Mode. Then press the  button to select Message A,B,C or D in the LCD, 1 to 4 Red LEDs also show which Message is Selected. The LTC123 will revert to normal operation after a short period.

## Mirror Feature

Pressing and hold down the  button to put the LTC123 into temporary Reverse for as long as the button is pressed.  
With the Mirror feature, you can practice in front of a mirror and still see the words the correct way around.

## Powering Off

Press and hold down the  button for about two seconds. LTC123 beeps twice and shows two flashes of Red LEDs.  
The LTC123 will auto power off after three minutes if no button is pressed and the unit is not moved.

## LTC 123 Character Set

ABCDEFGHIJKLMNOPQRSTUVWXYZ 0123456789+ = - . ' @ \$ % & ! ?  
 CR G V S B Z N T A A A A A A B B B B B B I I I I I I N O O O O O X S U U U U Y P B O O \* ° ÷ % +  
 abcdefghijklmnopqrstuvwxyz / # # n o j \* † j \* † g p j \* † \ / < >


The LTC123's Character Set contains 144 Characters.  
The Character Set contains Upper and Lower Case commonly used Western European characters  
Characters with a dot underneath are useful for Chase and continuous streaming effects. Most are intended to be used in combination.  
For instance, the last two Characters make a nightrider effect.  
Characters with a grey background are special control Characters, they are explained in 'How to Enter a Message' overleaf.

## Default Messages



The LTC123's Default Messages are show below.

<p>Message 1</p> <p>HeLLoCHAPPY@BIRTHDAYWParty!c†</p>	<p>Message 3</p> <p>IWLOVERYOU@SEXYC@+@CG@W†</p>
<p>Message 2</p> <p>MOVEYOUR@BODY@GROOVYc†</p>	<p>Message 4</p> <p>W@&lt;@R@&lt;@G@&lt;@V@&lt;@C@†</p>

## How to Enter a Message

To enter Editor Mode, press and hold down all three buttons  until you get a beep and a flash of Green LEDs. Once in Editor Mode the LCD display shows the first Character of the first Word of the current Message.


Step 1). Think of a word to enter.


Step 2). Use the  and  buttons to select the desired Character.


Step 3). Press the  button to enter the Character.


Step 4). Repeat Step 2 and 3 until you have entered the Word.

Step 5). Select one of the following End of Word Characters:-



 Colour Cycle - Each Character of the Word will be in a different colour

 Red - The Word will be Red in Colour. (Top LED lights up Red)


 Green - The Word will be Green in colour. (Top LED lights up Green)


 Yellow - The Word will be Yellow in colour. (Top LED lights up Yellow)

Step 6). If you want to enter another Word repeat from Step 1.


Step 7). Once you have entered the Word(s). Select the End of Message Character  then press the  button.


The LTC123 will exit Editor Mode and normal operation is resumed.


If you make a mistake when entering your Message, you can press all three buttons  again to exit Editor Mode.


If you enter the  Character as the first Character of a Message, the factory default Message will be restored.

## SignLine Mode

When you enter a Word in Editor Mode if you follow an End of Word Character with one of the four special  speed control characters, then that Word will be repeatedly displayed, even in the LTC123 is not being moved.


The Motion Detector mechanism is ignored in SignLine Mode. The speed of display output is controlled by the choice of  Character. 1 to 4 Yellow LEDs to indicate the selected speed.

 Speed 1. The slowest speed. Good for Night Rider Chase type FX.

 Speed 2. Quicker. Good for producing streaming chains of FX as the LTC is moved around

 Speed 3. Fast. Stand the LTC123 upright on a flat surface. Flick your eyes left and right past the LTC123 to observe Message.

 Speed 4. Very Fast. Same as above but for observation at further range. Gets you when you don't expect it!

Note for SignLine Mode to work the  Character **must** be the very next Character after an End of Word Character. See Message 4 below.

## LTC123 Button Map

