

SYNRAD Technical Bulletin

0016

Technical Issue: Wiring a Footswitch to an FH Flyer Marking Head or a Fenix Flyer Laser Marker

Date: 27 August 2008

Description:

This Technical Bulletin describes how to connect a customer-supplied footswitch to trigger semi-automated marking using an FH Flyer marking head or a Fenix Flyer Laser Marker.

This Bulletin covers the following topics:

- Introduction
- Wiring the footswitch
- Adding automation to the mark file

Introduction

In many semi-automated marking applications, the machine operator will depress a footswitch to trigger laser marking. This Technical Bulletin describes the wiring required to incorporate a customer-supplied, manually-operated footswitch and modify WinMark Pro mark files with the required input automation sequences.

Wiring the footswitch

To connect a manually-operated footswitch to an FH Flyer marking head, refer to Figure 1 and perform the following steps:

View from rear (solder-cup side) of female DB-25 connector

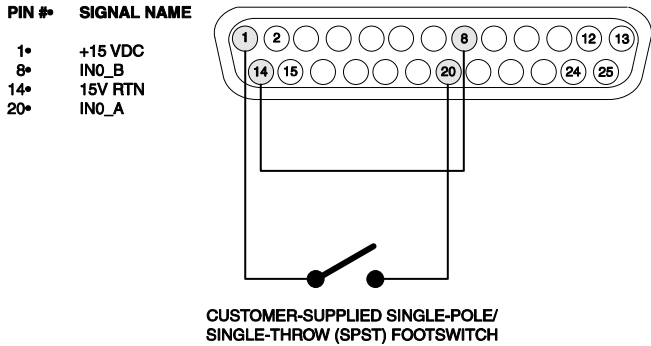


Figure 1 DB-25 footswitch wiring diagram

Important Note: Figure 1 is drawn looking at the rear (solder-cup side) of the female DB-25 connector.

- 1 Locate the female DB-25 connector included in the marker's Ship Kit and connect Pin 1 (+15 VDC) to one side of your single-pole/single-throw (SPST) footswitch.

Note: If using a single-pole/double-throw (SPDT) footswitch, connect Pin 1 to the center, or Common, terminal.

- 2 Connect the Normally Open (NO) footswitch terminal to Pin 20 (IN0_A).
- 3 Connect Pin 8 (IN0_B) to Pin 14 (15V RTN).

Adding automation to the mark file

Perform the following steps to add the required automation sequence to your mark file:

- 1 Open your mark file in WinMark Pro's Drawing Editor and select the *Drawing* object by clicking a blank section of the Drawing Canvas.
- 2 Select the *Automation* tab and click *Wait Digital Before Piece*.
- 3 Click the arrow button and then click *IN0*.
- 4 Click the arrow button and choose *Set*. The Automation tab should appear as shown in Figure 2.

After a mark session is opened, this automation step forces WinMark Pro to wait indefinitely until a voltage is applied to input *IN0*. This is called the 'start mark' signal.

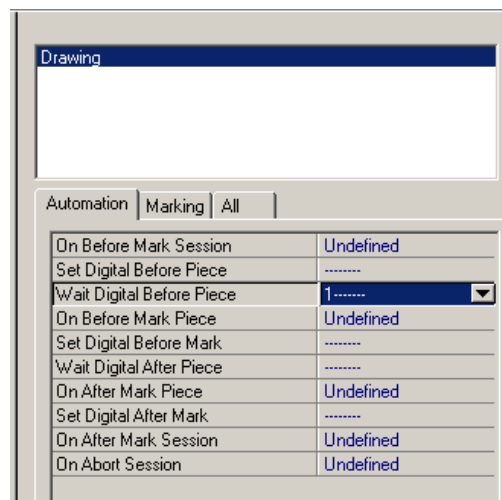


Figure 2 Wait Digital Before Piece automation

- 5 Click *Wait Digital After Piece*.
- 6 Click the arrow button and then click *IN0*.
- 7 Click the arrow button and choose *Clear*. The Automation tab should appear as shown in Figure 3.

Step 7 forces WinMark Pro to wait indefinitely until voltage is removed from input *IN0*. This ensures that only one mark is lased each time the footswitch is depressed AND prevents continuous marking from occurring if the footswitch fails in a closed position.

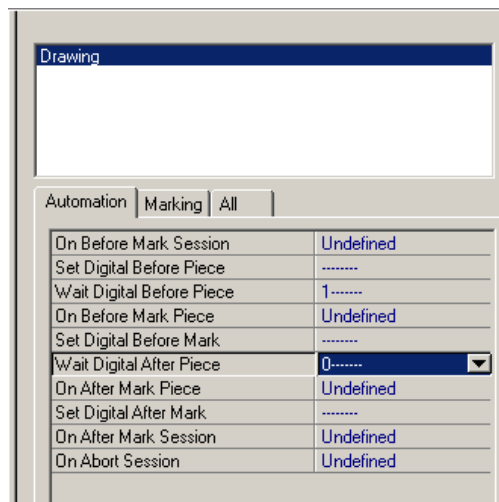


Figure 3 Wait Digital After Piece automation

- 8 Click the *Marking* tab and set the *Mark Count* property to zero (0).

After beginning a mark session where *Mark Count* equals 0, an automated mark session continues indefinitely. WinMark waits for a 'start mark' signal on input *IN0*, lases the mark file, verifies the 'start mark' signal has cleared, and then loops back to repeat the process. To end an automated mark session, press ESC on the computer keyboard.

- 9 Repeat this procedure for each mark file used with the footswitch.

For more information about WinMark Pro automation, see our *Laser Marking FAQ* located at: http://www.winmark.com/faq_main.htm.

For further information, contact SYNRAD, Inc. at 1.800.796.7231; outside the U.S., dial +1.425.349.3500 or fax us at +1.425.349.3667.