LOGIC RAIL™ TECHNOLOGIES

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Block Animator
- Infrared versions
Instruction Supplement

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Introduction

This supplement shows you how to do the following with any version of the ***Block Animator***:

- Interlock (i.e. force to red) two single head signals with turnout position
- Interlock a dual head signal with turnout position
- Alternate signal positioning

General Theory of Operation (Interlocking signals)

To have more prototypical signal behavior you can interlock your signals with the position of a turnout(s). As such a signal head will display red since a turnout cannot be aligned for multiple routes simultaneously! When a sensor input terminal is connected to ground (GND) the ***Block Animator*** will be tricked into thinking that a train is reflecting the IR beam and will thus display red on the signal. When a sensor input terminal is no longer grounded the ***Block Animator*** will resume normal operation based on sensor activity.

Wiring diagrams in this supplement show connections IN ADDITION to the standard sensor wiring described in the *Block Animator* instructions!

Interlocking two single head signals with turnout position

Figure 1 shows how you can use the auxiliary contacts on a switch machine/motor to accomplish interlocking. Also shown is the relative placement of the infrared components. Many switch machines/motors have one or more sets of "SPDT" (single pole double throw) contacts that you can use. You will need a single set of SPDT contacts for this application. What the SPDT contacts will do is to "ground" a sensor input on the ***Block Animator*** when the turnout is thrown for the opposing route. The W1 sensor input terminal will be grounded on the ***Block Animator*** when the turnout is thrown for the main route (the terminal labeled COM makes contact with the terminal labeled N.C. (Normally Closed)). Similarly, the E1 sensor input terminal for the main route will be grounded on the ***Block Animator*** when the turnout is thrown for the diverging route (the terminal labeled COM makes contact with the terminal labeled N.O. (Normally Open)).

Please note that with this usage of the *Block Animator* you CANNOT enable approach lighting; you MUST have the APPRL switch in the OFF/OPEN position in order to have proper signal behavior.

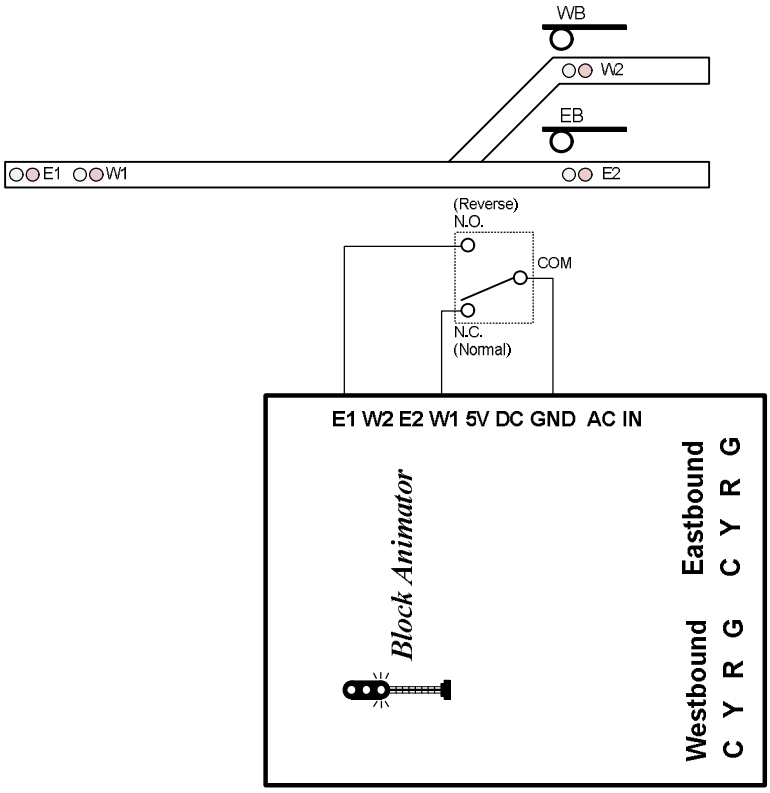

Figure 1

Interlocking a dual head signal with turnout position

If you want to have an even more prototypical signal arrangement near a turnout then you can use a dual head signal along with one ***Block Animator***. One head or the other will display red since the turnout cannot be aligned for both routes simultaneously! Figure 2 shows how you can use the auxiliary contacts on a switch machine/motor to accomplish this. Also shown is the relative placement of the infrared components. You will need one set of "SPDT" (single pole double throw) contacts. The W1 sensor input will be grounded when the turnout is thrown for the main route (the terminal labeled COM makes contact with the terminal labeled N.C. (Normally Closed)). Similarly, the E1 sensor input will be grounded when the turnout is thrown for the diverging route (the terminal labeled COM makes contact with the terminal labeled N.O. (Normally Open)).

Please note that with this usage of the *Block Animator* you CANNOT enable approach lighting; you MUST have the APPRL switch in the OFF/OPEN position in order to have proper signal behavior.

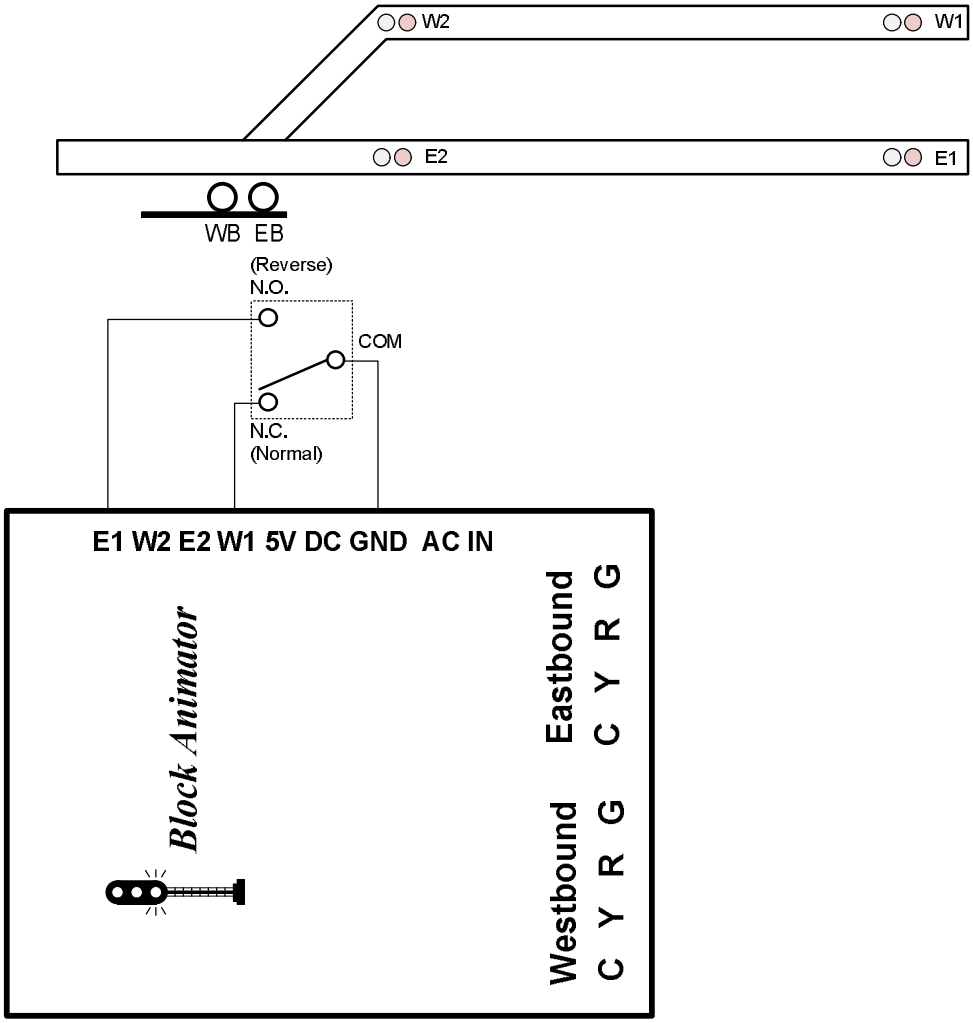

Figure 2

Alternate signal positioning

The ***Block Animator*** was designed such that the two signals it controls are located directly across the track from one another (and facing opposite directions). However, you could certainly choose to locate the signals at the opposite ends of a long section of track as shown in Figure 3 below. Use the standard wiring as described in the ***Block Animator*** instructions. **Please note that with this usage of the *Block Animator* you CANNOT enable approach lighting; you MUST have the APPRL switch in the OFF/OPEN position in order to have proper signal behavior.**

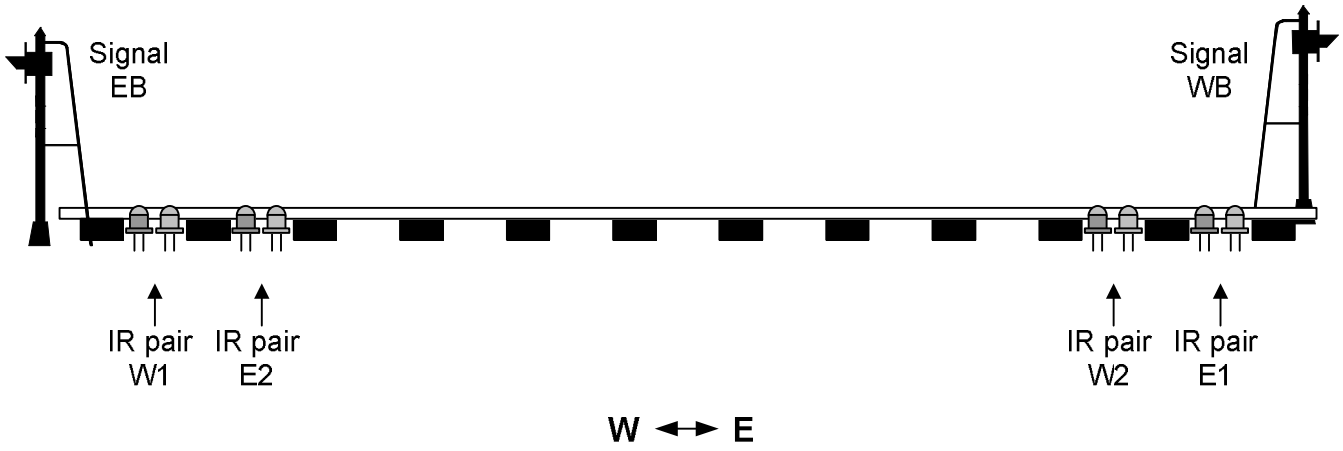

Figure 3