



Z-Stuff for Trains

making model railroading more fun

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DZ-1011 Block Signal Detectors

Rev 9-9-01

Block Signal Contents:

(2) DZ-1011 Block Signal Detectors
Mounting screws for detectors

Introduction:

The DZ-1011 Block Signal Detectors add a wonderful touch of realism to your layout. They can provide early detection of trains approaching a crossing or they can detect trains on hidden layover tracks. The detector is a realistic two color (GREEN/RED) block signal that also functions as a train detector.

Operation:

When the sensor on the side of the housing detects a train on the adjacent track the GREEN LED goes off and the RED LED turns on. To use the DZ-1011 as a block signal the WHITE output wire can be taken to ground. This also causes the LEDs to switch from GREEN to RED. The wiring for the signal is shown in TABLE 1 and FIGURE 2.

The **RED** wire should be connected to **10-14VAC** and the **BLACK** wire should be connected to **COMMON**.

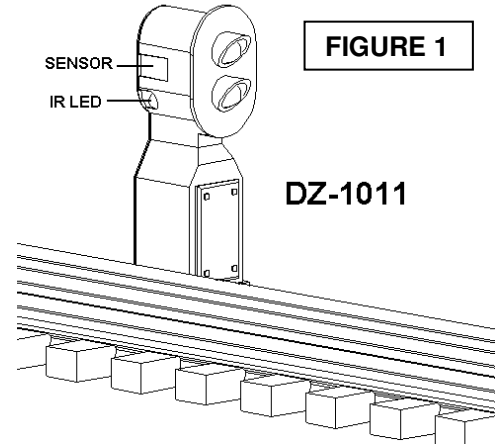


FIGURE 1

DZ-1011

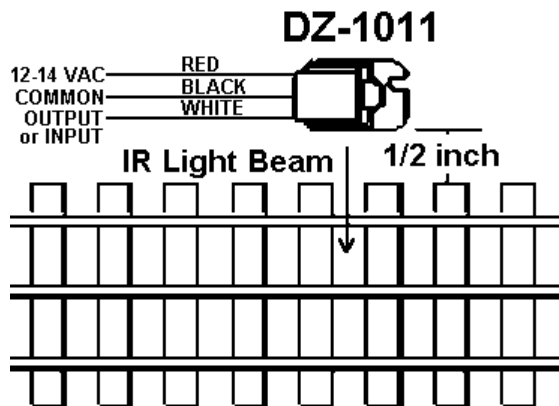


FIGURE 2

Wire Color	Function
RED	10-14 VAC
BLACK	COMMON
WHITE	OUTPUT or INPUT

FIGURE 3

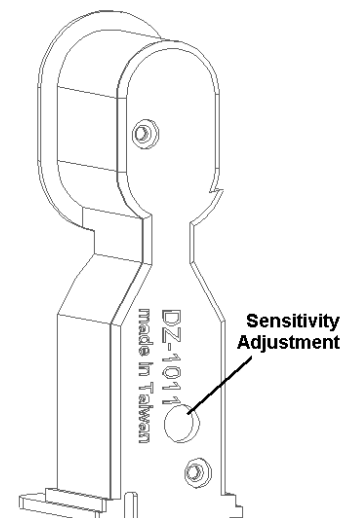
DZ-1011 Installation:

As shown in FIGURE 2, the Block Signals sense the passing train on only one side. Placing them about 1/2 inch from the edge of the track tie should provide reliable detection of all your engines and rolling stock. The GREEN LED will switch to RED as the train passes and return to GREEN about 2-3 seconds after it is gone. The wire functions of the DZ-1011 are shown in TABLE 1. Connect the **RED** wire to **10-14VAC** and the **BLACK** wire to **COMMON**. The **WHITE** wire is the output. Adjust the sensitivity of the detector in the block signal by adjusting the variable resistor, which is accessed through the hole in the Block signals back, as shown in FIGURE 3.

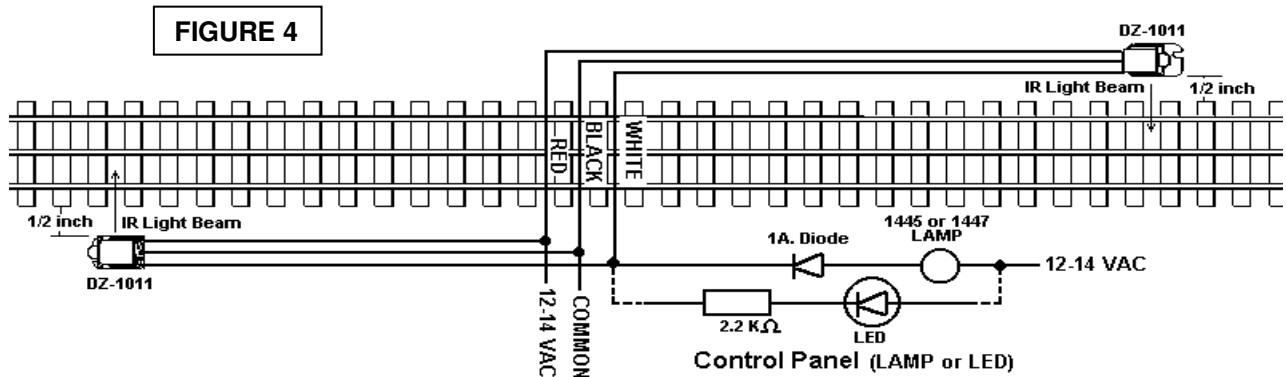
Applications:

By connecting the WHITE wires together of two DZ-1011s, when one block signal changes the other will also change to indicate that the track is occupied.

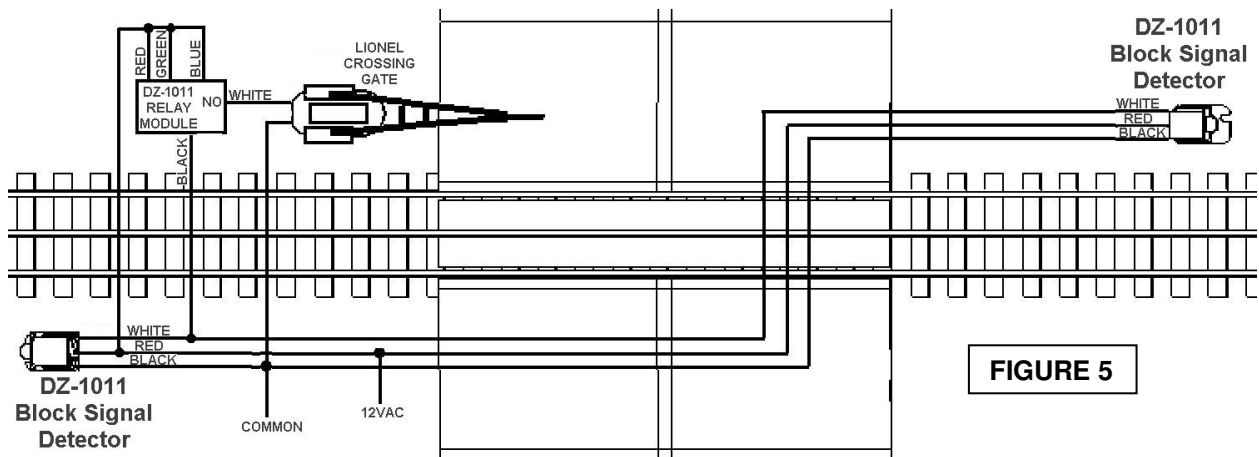
The Block Signal Detectors may also as signals. If the WHITE wire is connected to COMMON, the GREEN LED will go out and the RED LED will light.



The output can be connected to an LED or a low current lamp (1445/1447) on a control panel to indicate if a train has passed the block signal detector. As shown in FIGURE 4, one side of the LED or lamp should be wired to the same power as the DZ-1011 (10-14VAC) and the other to the OUTPUT of the DZ-1011 through a 1 amp. Diode.



The DZ-1011s can be used to operate other accessories by using them to drive a DZ-1008 Relay Module. This is shown in FIGURE 5 below. The connections to drive an MTH crossing gate are shown in FIGURE 6.



For Parts and Service Contact:

GarGraves Trackage Corp.
 8967 Ridge Road
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 315-483-6577

Or

Ross Custom Switches
 45 Church St.
 Norwich, Conn. 06360
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