



Z-Stuff for Trains

Making model railroading more fun



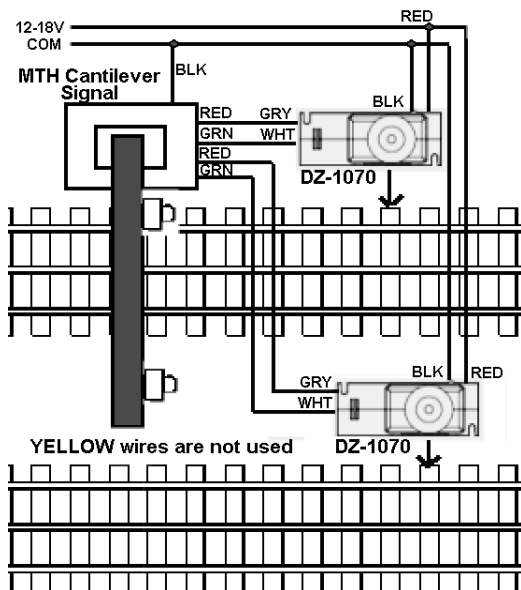
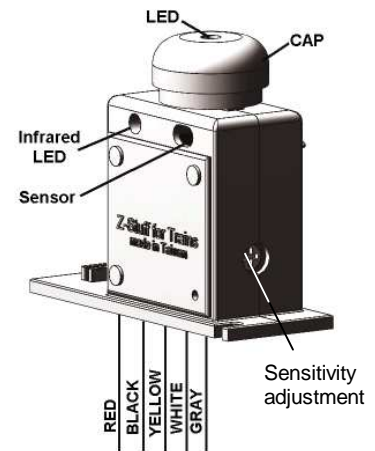
DZ-1070 TrackSide Sensor Instructions

This trackside sensor only needs the RED wire connected to power (12-18V AC or DC) and the BLACK wire connected to common to operate. It has been tested in ALL lighting conditions from total darkness to direct sunlight with no problem. Place the sensor next to the track about 1-1/2" away from the outside rail. Facing the front of the sensor, the train is detected on the LEFT side. The sensor will not reach across more than one track. If more sensitivity is needed to detect black rolling stock, try rotating the sensitivity adjustment clockwise. For some rolling stock the sensor may need to be raised to sense the high riding cars. When the train passes the sensor, the LED in the cap will light until the train has passed. 4 seconds after the train passes, the LED will go out. When the LED is lighted the GRAY wire will turn on and the WHITE wire will turn off. When the LED is not lighted, the GRAY wire is off and the WHITE wire is on. The outputs can directly operate LED type signals such as MTH's bridge or cantilever signals. Since the outputs are limited to about 25 ma., they cannot operate Lionel's bridge signal which uses lamps or semaphores that use solenoids. To operate that type of signal, use the DZ-1070 in combination with our DZ-1008 relay as in option B.

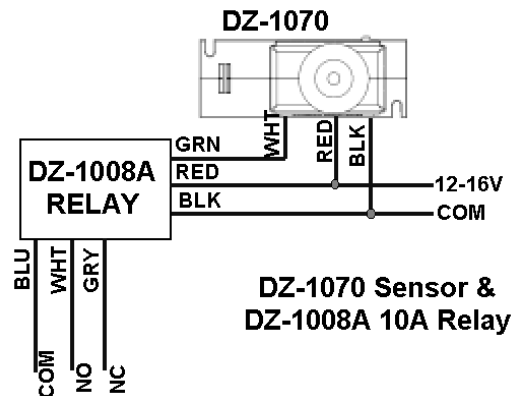
OPTION A – The WHITE and GRAY wires are connected directly to the GREEN and RED wires of an MTH signal with the BLACK wire of the signal connected to common. The MTH bridge and cantilever signals a typical examples. For these signals, (2) DZ-1070 will be required. One for each track.

OPTION B – The WHITE or GRAY wire can be connected to the GREEN wire of a DZ-1008 relay module. The RED wire of the DZ-1008 should be connected to the same power as the signal and the BLACK wire connected to common. The sensor will then cause the relay to change when the sensor LED turns ON and the relay will change back when the sensor LED turns OFF.

OPTION C – If the optical sensor is covered with black tape, then the input (YELLOW) wire can be used to control the sensor. Connecting the input wire to an isolated rail will cause the sensor to change its two outputs and operate a typical LED signal.



(2) DZ-1070 & MTH Cantilever Signal



DZ-1070 Sensor & DZ-1008A 10A Relay