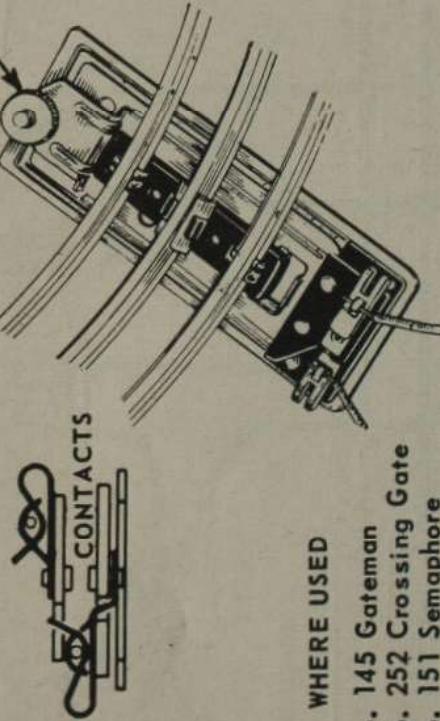


AUTOMATIC SIGNALING

Model railroad signals and trackside accessories made by Lionel are usually operated automatically by means of "contactors" actuated by a passing train. Contactors 145C and 153C are worked mechanically by the weight of the train. Others are operated electrically by the train wheels making an electrical contact with the contactor surface and in this way completing the electrical circuit.

Pressure-type contactors are placed underneath the track so that a track tie rests firmly on top of the contactor. If the track is fastened to a platform make sure the track is loose for several sections on either side of the contactor because the track must be free to bend under the weight of the train.

The 145C Contactor, electrically, is a single-pole, single-throw, normally-off switch. The end view of the contactor below shows it with its contacts in their normal, open position.



WHERE USED

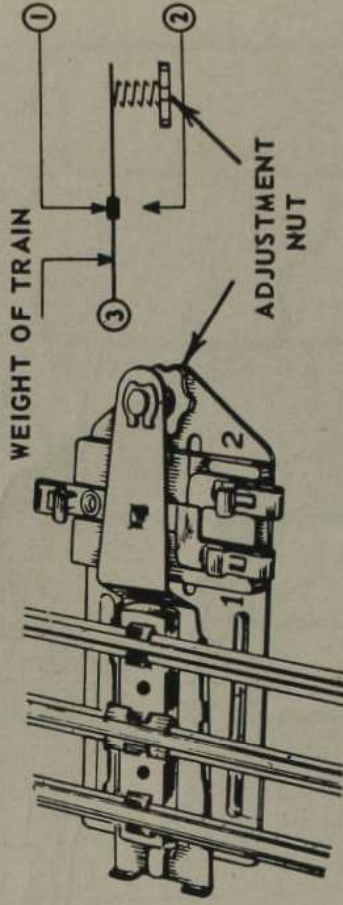
- No. 145 Gateman
- No. 252 Crossing Gate
- No. 151 Semaphore
- No. 445 Switch Tower

SIGNALING

An adjustment nut is provided to regulate the weight required to operate the contactor. This is done after all wire connections are made and transformer power is on. Stop the train several sections away from the contactor. Turn the adjustment nut either up or down until the signal operates. Then turn the nut back just enough to return the signal to its normal non-operating position. By varying the setting of the adjustment nut the signal can be made to respond either to the weight of the heavy locomotive alone, or to the lightest car.

Note: Automatic operation can also be achieved through the use of special insulated track described on page 37.

The 153C Contactor, electrically, is a single-pole, double-throw switch. The diagram of the contactor below shows the normal position of its contacts.



WHERE USED

- No. 153 Block Signal
 - No. 450 Signal Bridge
- Insulated block for two-train operation