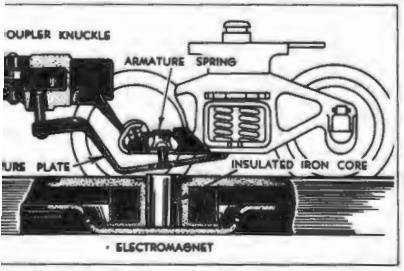
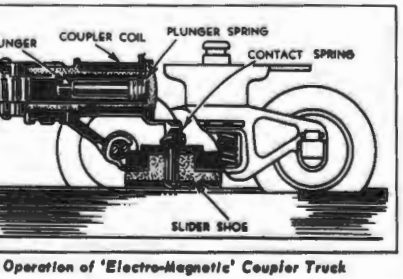
h the exception of electronic cars, which can rated anywhere on the track, all Lionel operat-rs and other cars equipped with electric cou-can be unloaded and uncoupled only by means emote Control Track Set. Remote Control Track consist of a special track section equipped with of control rails and a central electro-magnet two-button controller connected to the track n by a four-conductor cable.

iern remote control track set for 'O' track is ated as UCS; a similar set for '027' track is 019. These remote control sets will uncouple electro-magnetic' and 'magnetic' couplers (See Section MIS-TRUCKS) and should be used to e the earlier RCS and No. 1019 which have no electro-maguet and therefore cannot open the a 'magnetic' trucks.




*Operation of 'Magnetic' Coupler Truck*

er knuckle snaps open when movable armature plate on truck m is attracted by the energized electromagnet




*Operation of 'Electro-Magnetic' Coupler Truck*

er knuckle snaps open when coupler coil is energized gh truck slider shoe in contact with control rail

esides opening 'magnetic' couplers, the central romagnet of modern remote control sections is to control several plunger-operated cars, such e Searchlight Car and the Animated Box Car.

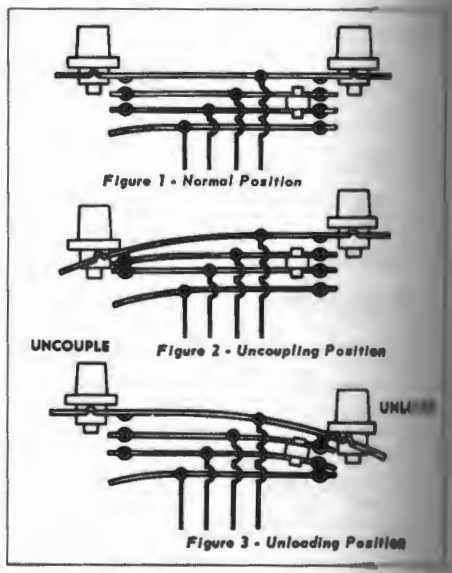


*Figure 1 - Normal Position*

*Figure 2 - Uncoupling Position*

UNCOUPLE

UNL

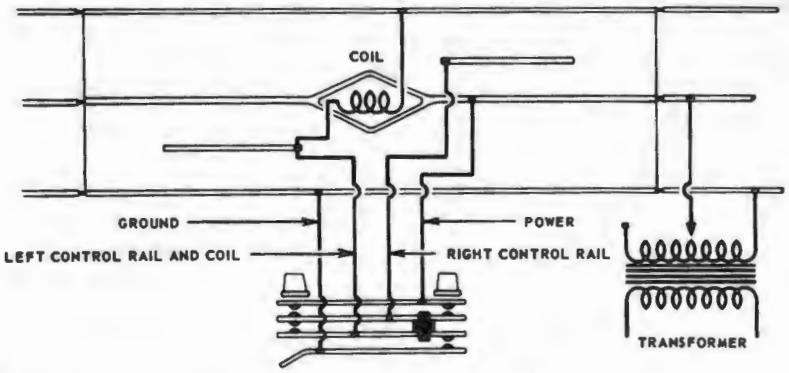
*Figure 3 - Unloading Position*

Although the various special track sections diff from each other, their controllers are identical the exception of the treatment of cable ends. The troller is a pile-up switch consisting of four flat tact springs insulated from each other by fibre s ers. In normal position (Figure 1) the four cont are separated. In 'Uncouple' position (Figure 2) spring connected to the track power rail is brou into contact with the two control rails and to the tral electro-magnet. In 'Unload' position (Figu one of the control rails is brought into contact the power rail while the opposite control rail is nected to ground through the outside rails.

While remote control sections can be located where in the layout the best practice is to place t between two ordinary straight sections. This facilitate coupling by aligning the trucks of adj cars and avoid possible interference which may under some circumstances between accessories l ted next to the remote control section and locomo coming out of a curve. Another difficulty which be experienced if the remote control section is l ed next to a curve is that the roller of a 622 d switcher may bridge between the center rail and of the control rails causing the switcher to un automatically.



*Figure 4 - Schematic Wiring Diagram of Remote Control Set No. 6019*




Note that for fixed voltage connection illustrated below the fourth conductor which normally leads to the power rail of the remote control section is connected directly to the transformer.

### *Fixed Voltage Operation*

In normal usage the control rails and the electro-magnet are energized by the regular variable track voltage applied to the entire track system, but it is sometimes desirable to permit a remote control section located in an insulated siding, etc. to receive fixed voltage directly from the transformer so that an operating car stationed in the siding might be unloaded even though the rest of the siding is 'dead'.

For this installation the controller wire which runs to the center power rail (See Figures 4, 6 and 8) should be disconnected from the remote control section and connected instead to a fixed voltage post on the transformer. To prevent a short circuit the fixed voltage and the variable track voltage circuits should have a common ground. A chart listing such fixed and variable voltage combinations for various transformers is given In section PS.

*Figure 5 - Diagram for Connecting Fixed Voltage to Remote Control Set No. 6019*