

How to Operate

Remote Control Non-Derailing No. 1122(E) Switches

FOR '027' TRACK

Railroad track switches, also known to railroaders as 'turnouts', are used to connect two lines of track so that the train can cross over from the main line to a siding, a spur line or to a different line entirely.

Lionel No. 1122 switches are made to match '027' track. They have the same length and curvature as ordinary straight and curved '027' track sections and are installed in the track layout in the same way, with each switch replacing one straight and one curved track section.

Switches are generally sold in pairs, consisting of a right-hand and a left-hand switch. An easy way to tell the difference is this: If a train proceeding along the main line has to turn out to the left, it uses a left-hand switch; one turning out to the right uses a right-hand switch.

Track switches can be used in a great variety of ways some of which are illustrated in the simple layouts on the right. Except when used to enter a dead-end siding, or spur, as in Figure 3, a pair of switches is needed in the layout so that a train has a way of getting back on the main track without backing out of the siding. The pairs of switches can be installed in a layout together, as in Figure 1, or separately, as in Figure 2.

These layouts, of course, merely illustrate how switches may be used. Innumerable other layouts can be developed through the use of crossings and additional track and switches. See your instruction booklet for additional layout ideas.

Switches are inserted in a track layout in the same manner as a piece of curved or straight track. Carefully line up the pins to the adjacent track section and press the track firmly to the switch. You may find in some layouts that the switch pins interfere with those in the

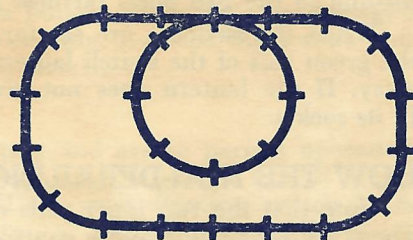


Figure 1

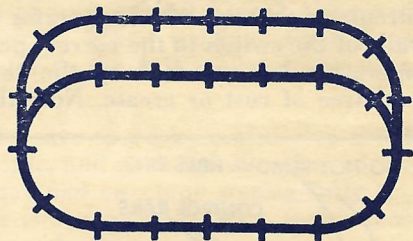


Figure 2

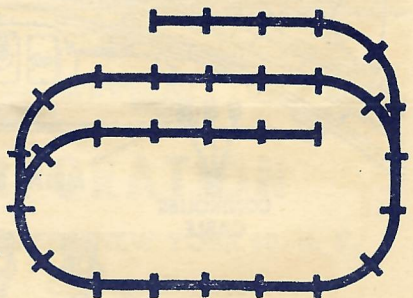


Figure 3

track. In such cases remove the pins from the regular track; try not to disturb any of the pins of the switch and particularly do not remove the fibre pins. Track pins are removed most easily with a pair of diagonal cutting pliers, as shown in Figure 4. Grasp the pin firmly with the cutting edges as close to the rail as possible and pry it out gradually. No separate electrical connections are necessary since the switch mechanism draws its power directly from the track.

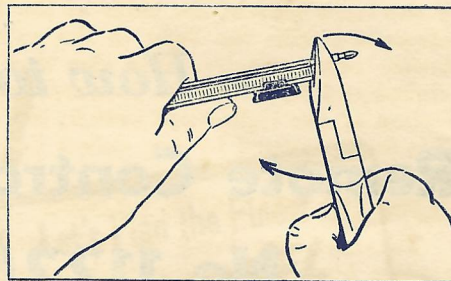


Figure 4—How to Remove Track Pins.

CONNECTING SWITCH CONTROLLERS

The switches are operated by means of controllers which are connected to the switches by 3-wire flat cables. Straighten out the cable and connect the wires to the switch posts in order, making sure that the wire with the metal lug is connected to the binding post nearest the switch box. To "throw" the switch move the controller lever and the swivel rails will snap over. If the action of the two levers does not correspond, reverse the connections of the two wires leading to the two posts farthest from the switch box.

When the switches are set for the train to travel along the straight-away, the green lens of the switch lantern should face in the direction of the straight-away. If the lantern does not give correct indication simply turn it around in its socket.

HOW THE NON-DERAILING FEATURE WORKS

Note that the two inner rails of the switch end with insulating track pins. These are the non-derailing control rails. As a locomotive approaches an 'open' switch along either one of the branches of the switch, its wheels bridge the control rail to the opposite outside rail. This action completes the electrical circuit to the coil which operates the switch mechanism and throws the swivel rails of the switch to the correct position for the train to pass through. For good operation be sure to keep the control rails and the locomotive wheels clean and free of rust or grease. Note that when the switch is thrown automatically

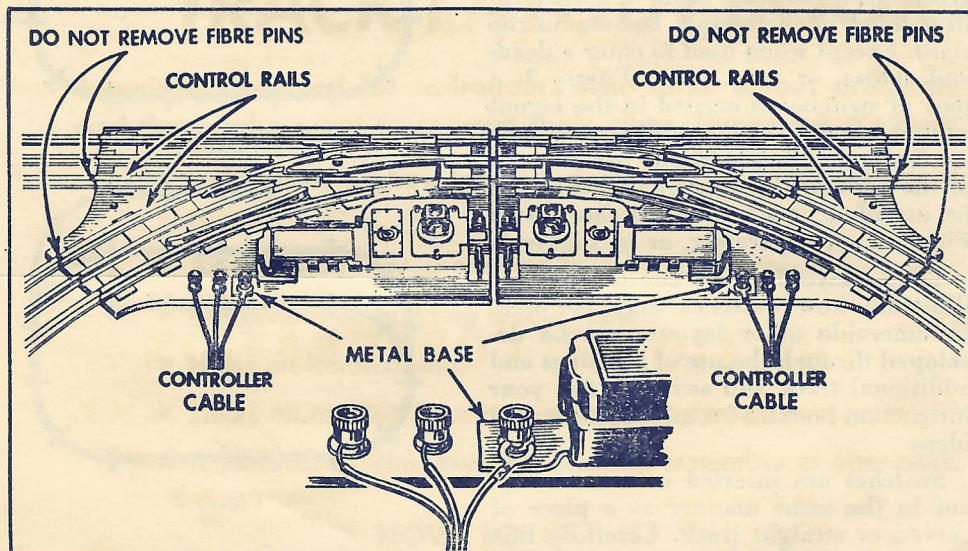


Figure 5—How to Connect Controller to No. 1122 Switches. Note that the Wire with the Metal Lug is Connected to the Post with a Metal Base.

by the train wheels, the color of the light in the controller will not change to correspond with the light in the switch, indicating that the switch has been thrown automatically. Note also that in one position of the switch controller (right-hand lever thrown forward) or when the train crosses over the curved portion of the right-hand switch, the controller light will go out momentarily. This is not caused by any defect but is the way the controller is constructed.

HOW TO REPLACE LAMPS

To reach the lamp in the switch box simply unscrew the switchcover. Replace burned out lamp with lamp No. L53. Use no substitutes.

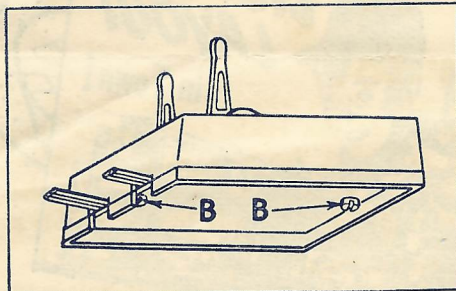


Figure 6—How to Replace Lamp in Controller.

To replace the lamp in 1122-100 Controller, remove the two screws ('B' in Figure 6) which hold the bottom plate to the controller cover. Then lift off the cover and replace the lamp. The lamp used in the controller is No. L53. No substitute should be used. When replacing the cover make sure that the two control levers are in the upright position. Otherwise the contact assembly on the bottom plate may be damaged in reassembly. Replace the screws and tighten firmly.

LIONEL WARRANTY

These switches were inspected at the Factory and are in perfect operating condition. Like all Lionel products these switches are guaranteed against faulty material or workmanship to the extent that if any such defective switch is returned to the Lionel Service Department or to any Lionel Authorized Service Station within one year of the date of purchase it will be repaired or replaced. If in the future they should ever require servicing, you may either send them to the Factory Service Department, or take them to your nearest Lionel Approved Service Station, listed in the Instruction Booklet. When writing about these switches or ordering parts for them please refer to the full model designation stamped on the bottom of the switches.

If you decide to mail the switches to us, be sure to pack carefully to avoid damage in transit. Use the original box, if possible, and enclose in another corrugated box or strong container. A letter in a stamped envelope stating fully the service desired *must be pasted to the outside wrapper*. Post Office regulations do not permit a letter to be placed inside the package.

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