How to Operate
LIONEL HAND CONTROLLED No. 1022 SWITCHES
FOR "027" GAUGE TRACK

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

Lionel No. 1022 switches are made to match '027' gauge track. They have the same length and radius as ordinary straight and curved '027' gauge track sections with each switch replacing one straight and one curved track section.

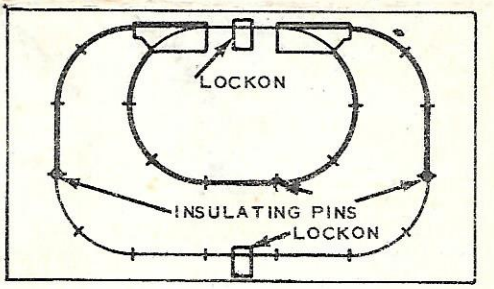


Figure 1

Switches are generally sold in pairs, consisting of a right-hand and a left-hand switch. An easy way to tell the difference in 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.

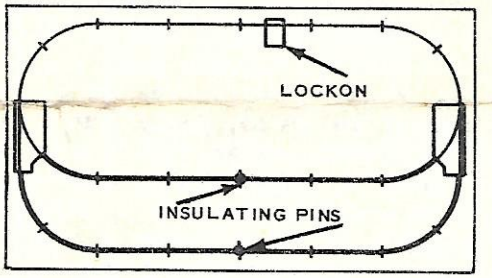


Figure 2

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 stub siding, as in Figure 3, a right hand and a left hand switch are generally required in the layout so that a train has a way of getting back on the main track without backing out of the siding.

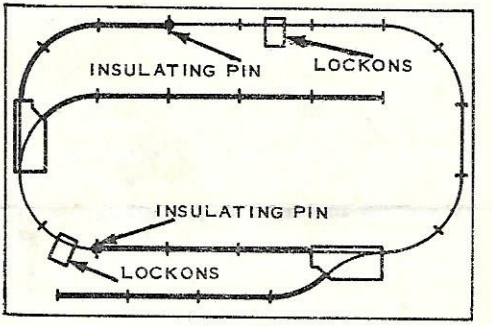


Figure 3

Note: Safety Blocks Are Indicated by Heavier Line.

The layouts in Figure 3, 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.

Switches are installed in a track layout in the same manner as a piece of ordinary track. Carefully line up the switch pins with the holes in the

rails of the adjoining track sections and press the track and the switch firmly together. You may find in some layouts that the switch pins interfere with those in the track. In this case remove the pins from the regular track - don't disturb any of the pins in the switch. Don't take a chance of distorting the rails on the switch because they are more difficult to reshape than the rails on ordinary track.

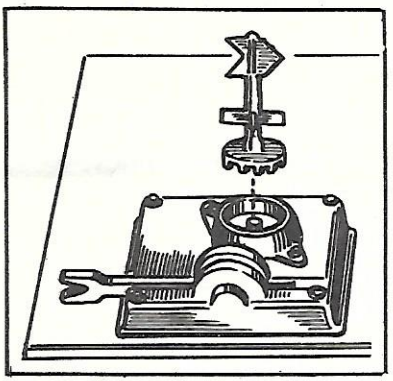


Figure 4 - How to Mount Switch Signal

The rotating direction signals which indicate the position of the swivel rails of the switch are packed separately and should be inserted into the switch box after the switches are assembled to the layout.

If the switch is set for the train to proceed along the straight-away the signal arrow should point in that direction. When the switch rails are set for the train to go into the turnout, the signal arrow should point at right angles to the straight-away section.

INSTALLING SAFETY BLOCKS

No. 1022 switches are equipped with a safety device which automatically shifts center rail power in the main part of the switch to either of the branches, depending on the setting of the switch. See Figure 5. This feature can be used in many layouts to construct safety blocks to prevent a train from running into a switch which is set against it. It is particularly useful for stub sidings, shown in Figure 3, where a train can be held in the siding simply by throwing a switch against it.

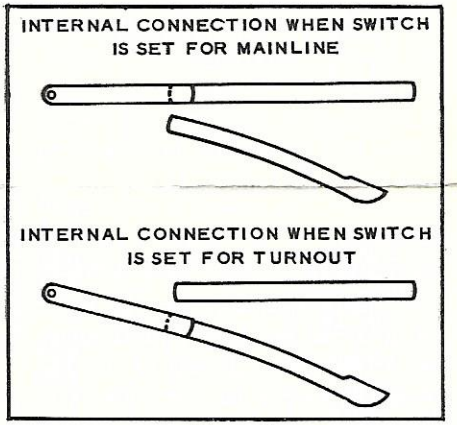


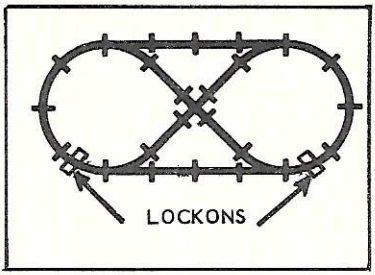
Figure 5

This safety installation is completed by inserting insulating track pins into the center rail about 3 or 4 track sections away from the two branches of the switch, as shown in Figures 1, 2 and 3. If this is done, the block adjoining the curved branch becomes dead when the switch is is set for the train to run along the straight-away. In the same way, when the switch is set for the train to enter the curved section or turnout, the block adjacent to the straight section becomes dead. A train approaching a switch set against it will enter a dead block and coast to a stop. Power to the dead block is restored automatically when the switch is thrown in correct position to permit the train to pass through.

IMPORTANT NOTE

It is important to note that safety blocks will operate properly only if they are long enough to allow the train to coast to a stop without rolling through the block even when power in the block is off. The layouts illustrated in Figures 1, 2 and 3 on the first page are about the smallest in

which safety blocks can be used. In certain layouts such as the "figure 8" layout illustrated at the right, space between switches is so small that safety blocks cannot be installed. In this and similar layouts a second lockon should be installed, as shown, to provide power to sections of the layout which become insulated in certain combinations of switch settings.



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These switches have been inspected at the Factory and were found in perfect operating condition. Like all Lionel products these switches are guaranteed against defects in material or in our workmanship. If any such defects develop we will repair or replace the defective part or parts, without charge, within one year of the date of purchase. If in the future these switches should ever require servicing you may either send them to the Factory Service Department or take them to your nearest Lionel Approved Service Station.

If you decide to mail the switches to us, be sure to pack them 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 fastened to the outside wrapper. Post Office regulations do not permit any written messages to be placed inside of a parcel post package unless a 4-cent stamp is added to the regular postage.

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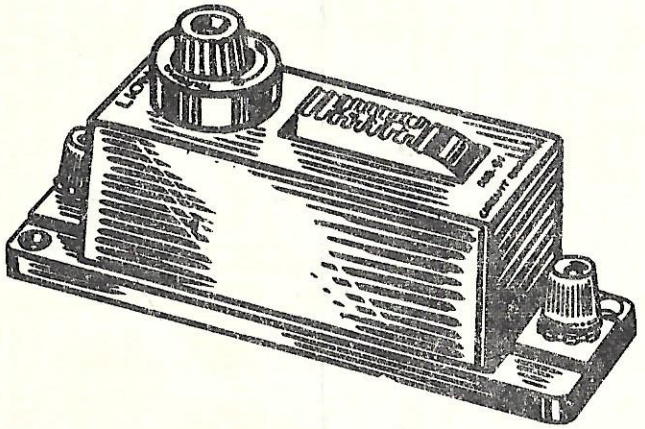

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