### INSTRUCTIONS

For Operating

# LIONEL No. 167 WHISTLE CONTROLLER



### THE LIONEL CORPORATION

15 EAST 26th STREET, NEW YORK 10, N.Y.

SERVICE DEPARTMENT
28 SAGER PLACE
IRVINGTON, N. J.

CHICAGO SHOWROOMS
AND SERVICE DEPARTMENT

MERCHANDISE MART WEST COAST REPRESENTATIVE AND SERVICE DEPARTMENT

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APPROVED SERVICE STATIONS IN THE PRINCIPAL CITIES, UNITED STATES AND CANADA

# HOW TO OPERATE

The Lionel built-in locomotive whistle represents one of the most ingenious developments ever made in model railroading.

By pressing a button at any distance from the track you can make your train sound any railroad whistle signal: long, loud whistles or sharp, quick blasts.

The whistle can be used only on alternating current having a frequency of not less than 40 cycles.

For direct current, you must use the Lionel No. 171 Direct Current Inverter in conjunction with the No. 167 Controller.

The No. 167 Whistle Controller has two control buttons: one button blows the whistle, the other button controls the reversing unit in the locomotive or power car.

## HOW TO CONNECT WHISTLE CONTROLLER TO TRANSFORMER

You can select the two variable voltage binding posts on your transformer that will properly operate your outfit by referring to the instruction sheet packed with every transformer. Then connect the Whistle Controller, as illustrated by Figure 1. Although a Lionel Trainmaster Transformer is shown, the method of connecting the Whistle Controller between the transformer and the track is the same regardless of the type of transformer; the Whistle Controller is merely connected in series. Inasmuch as Trainmaster transformer have built-in circuit breakers and continuous voltage control, No. 91 Circuit Breaker or No. 95 Rheostat is not required. When a Lionel Multivolt Transformer is used with a Circuit Breaker and Rheostat, the connection should be made as illustrated in Figure 2. A circuit breaker is desirable as it effectively protects

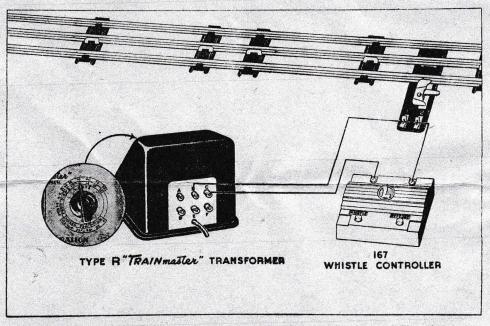


Figure 1-No. 167 Whistle Controller connected to Type R "Trainmaster" Transformer.

## HE LIONEL WHISTLE

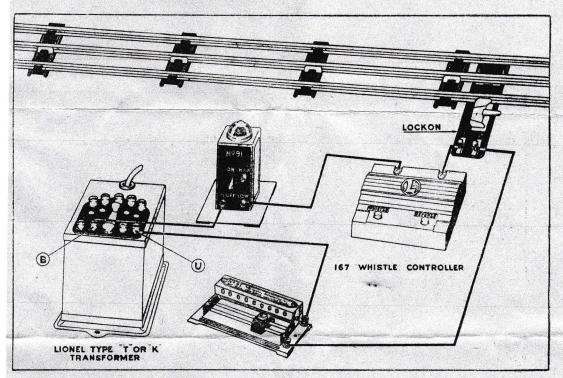


Figure 2-No. 167 Whistle Controller connected to Rheostat, Circuit Breaker and "Multivolt" Transformer.

transformer and Whistle Controller from "burn-outs" caused by a short circuit. The use of a rheostat for operating a train with a whistle will result in an appreciable slowing down of the train when the whistle is blown due to the increase of the voltage drop across the rheostat. If a rheostat is used, keep sliding contact well towards the "high" point to minimize this effect. A lower transformer contact point can be used to decrease the speed of the train if it is excessive.

#### HOW TO REVERSE THE TRAIN

By pressing on the "Reverse" button, current to the track is interrupted causing the reversing unit in the train to automatically change the direction of the locomotive or to stop it with the lights on. This reversing unit has three positions: forward, neutral, and reverse. For example, if the train is moving forward and the reversing button is pressed once, the train will stop with lights on. This is neutral position. By pressing the button again, the train will reverse. Now in order to make the train go forward again the current must be broken twice, thereby placing the unit first in a neutral and then in a forward position.

#### HOW TO BLOW THE WHISTLE

By pressing the button on the No. 167 Controller marked "Whistle" any whistle signal can be sounded at any time. The Whistle will blow as long as the button is held down. The normal operating voltage of the train will provide

sufficient current to operate the Whistle, but do not expect the Whistle to blow if the voltage from the transformer is less than the 8 volts minimum required to operate the smallest train outfit.

#### WARNING

Never attempt to blow the Whistle while a short circuit exists in the layout as this may result in permanent damage to your controller.

#### OFFICIAL WHISTLE SIGNALS · means a short blast, - a long blast Apply brakes. Stop. When train is standing, back. Release brakes. Proceed. Call for signals. Flagman go back and protect Approaching highway crossing rear of train. at grade. Flagman return from west or Approaching stations, junctions and railroad crossings at grade. south. Flagman return from east or Approaching meeting point of north. trains, on a single-track road. Train in motion has parted Answer to any signal otherwise provided for. A succession of short blasts is an alarm for persons or live stock on the track.

#### SERVICE INFORMATION

This Whistle Controller was inspected and sealed before it left the factory and is in perfect condition. Please do not tamper with the mechanism and you

will enjoy your whistle for a long time.

If at some future time it requires repairs, send it to your nearest Service Station, listed below. Be sure to pack the Controller carefully to avoid damage while in transit. Use the original box if you have it. Then place in a corrugated box or other strong container. A letter in a stamped envelope stating fully the repairs you wish to be made must be pasted to the outside wrapper, since the Post Office regulations do not permit a letter to be placed inside the package.

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