



73-1901-250
6/02



Lionel Winter Wonderland Train Set Owner's Manual

CAUTION—ELECTRIC TOY

NOT RECOMMENDED FOR CHILDREN UNDER EIGHT YEARS OF AGE. AS WITH ALL ELECTRIC PRODUCTS, PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE TO REDUCE THE RISK OF ELECTRIC SHOCK.

TRANSFORMER RATINGS—INPUT: 120 VAC; 60 HZ ONLY.

AC OUTPUT: 20 V; 54 VA

Congratulations!

Congratulations on your purchase of the Lionel Winter Wonderland Train Set!

This set features a die-cast metal 4-4-2 locomotive with a tender, an Animated Chase Gondola, a Musical Boxcar, and

Square Window Caboose with interior lighting. Complete with a transformer, a controller, and 16 sections of track, you have everything you need to build your layout.

Parents! **The transformer included with this set should be periodically examined for conditions that may result in the risk of fire, electric shock, or injury to persons (such as damage to the output cord, blades, housing, or other parts). In the event that such conditions exist, the transformer should not be used until properly repaired.**

The following Lionel marks may be used throughout this instruction manual and are protected under law. All rights reserved.

Lionel®, *TrainMaster®*, *Odyssey®*, *RailSounds™*, *CrewTalk™*, *TowerCom™*, *DynaChuff™*, *StationSounds™*, *Pullmor®*, *ElectroCoupler™*, *Magne-Traction®*, *CAB-1 Remote Controller®*, *Powermaster®*, *Lionel ZW®*, *ZW®*

Table of contents

Track layout

Joining the track sections	4
Suggested track layouts	5
Attaching the Lock-On to the track	5

Controller operations

Stripping the wire	6
Attaching the controller wires to the Lock-On	7
Controller functions	8
Controller and short circuits	9

Train operation

Running your locomotive with a Lionel transformer	10
Reverse unit procedure	11
Tire-Traction	12
Coupling	12
Operating your Musical Boxcar	13

Maintaining and servicing your set

Adding smoke fluid to your 4-4-2 locomotive's smoke generator	14
Lubricating your 4-4-2 locomotive	15
Replacing your 4-4-2 locomotive's headlamp	16
Lubricating the gear on your Chase Gondola	17
Replacing your Square Window Caboose lamp	18
Notes	19
Limited Warranty/Lionel Service	20

Lionel Winter Wonderland Train Set Inventory

- 4-4-2 Locomotive
 - Tender with air whistle
 - Musical Boxcar
 - Animated Chase Gondola
 - Square window caboose
 - Controller
 - 40-watt power pack
 - Lionel Lock-On
 - Eight sections of straight track
 - Eight sections of curved track
 - Smoke fluid
 - Owner's Manual
 - Service Center list
 - Warranty card
-

Track layout

Joining the track sections

Join the track sections together by inserting the pins of one track section into the open ends of another. For good electrical contact, the pins must be carefully inserted and the track joints tightly fitted.

If the track is difficult to connect, try this installation tip. You can “break in” O gauge track sections by inserting and withdrawing a track pin into one rail at a time before joining the entire track section as illustrated in Figure 1.

If the openings become too large (causing the track to fit loosely), pinch the rail together around a track pin with a pair of pliers. If any pins fall out of the track and are missing, replace them with extras available from your Lionel dealer.

Maintenance tip: The rails should be kept clean, dry, and free from oil and grease. Clean rust and dirt spots with a track eraser. Wipe the track using a cloth dampened with track cleaner from the Lionel Maintenance Kit (6-62927), available from your nearest Lionel Dealer.

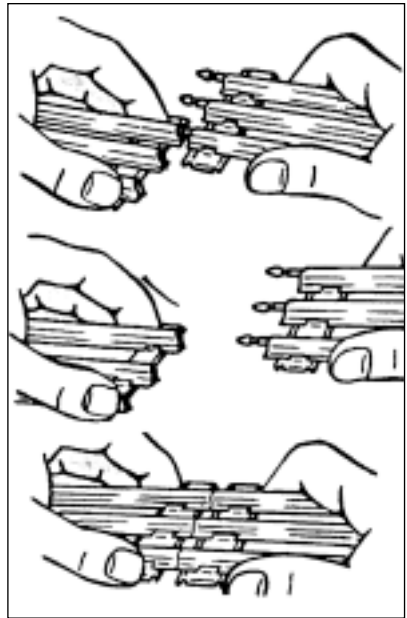


Figure 1. “Breaking in” your track

Track layout

Suggested track layouts

Figure 2 provides some examples of layouts you can build with eight straight and eight curved sections of track. Remember—the more track you own, the more variations you can create in your train layout. And that means more action and more fun!

Note! We recommend that you do not set up your track layout on carpeted surfaces. Carpet fibers may collect on your engine's wheels and drive gears, preventing your engine from operating properly. For best results, place the track on a hard surface.

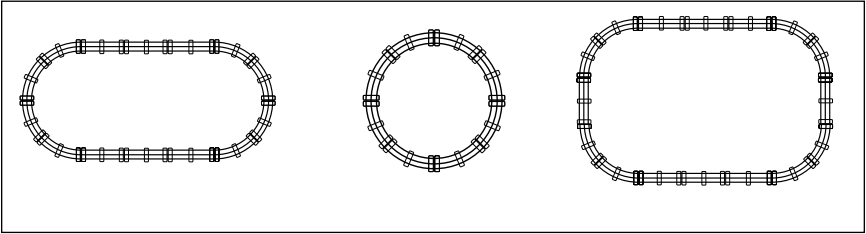


Figure 2. Track layout ideas

Attaching the Lock-On to the track

The Lock-On connects power from your controller to the track. As illustrated in Figure 3, attaching the Lock-On to the track is quick and easy. First, place the Lock-On under any straight section of track. Fit the center lip of the Lock-On onto the edge of an outside rail. Press the Lock-On upward so that the spring contact snaps onto the center

rail. The Lock-On should face outward when setting up your track. Make sure it is firmly connected.

Once the Lock-On is securely attached to the track, you are ready to insert the wires from the controller into the two spring clips on the Lock-On.

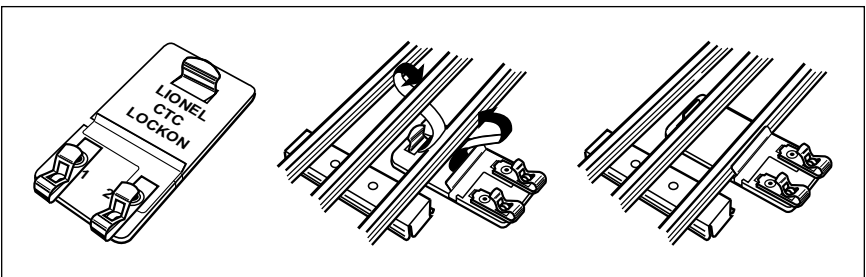


Figure 3. Lock-On installation

Controller operations

Stripping the wire

Once your track is assembled and the Lock-On is securely attached, you can connect the wires from the controller to the Lock-On.

First you'll want to check the ends of the wires to make sure that the insulation is stripped back about 1/4" to 3/8". To strip the wires, use a pair of wire strippers or a sharp knife as illustrated in Figure 4.

Caution! Only an adult should perform this task! Always use care when stripping wires.

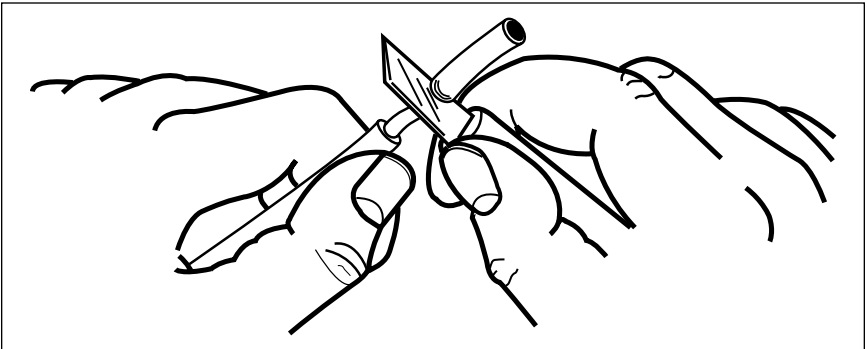


Figure 4. Wire stripping

Controller operations

Attaching the controller wires to the Lock-On

Now you'll need to insert a controller wire into each of the two spring clips on the Lock-On as illustrated in Figure 5.

Depress the spring clip with your finger and insert the bare end of the wire into the exposed opening. Release the spring clip. Give the wire a little tug to make sure it's secure. Repeat these steps with the other spring clip. Next, insert the small plug end of the power pack into the back of your

controller, and plug the other end into a standard outlet.

Note! If the whistle fails to operate when you press the whistle button on your controller (see page 8), remove the wires from the Lock-On and reinsert each one into the opposite clip to reverse polarity.

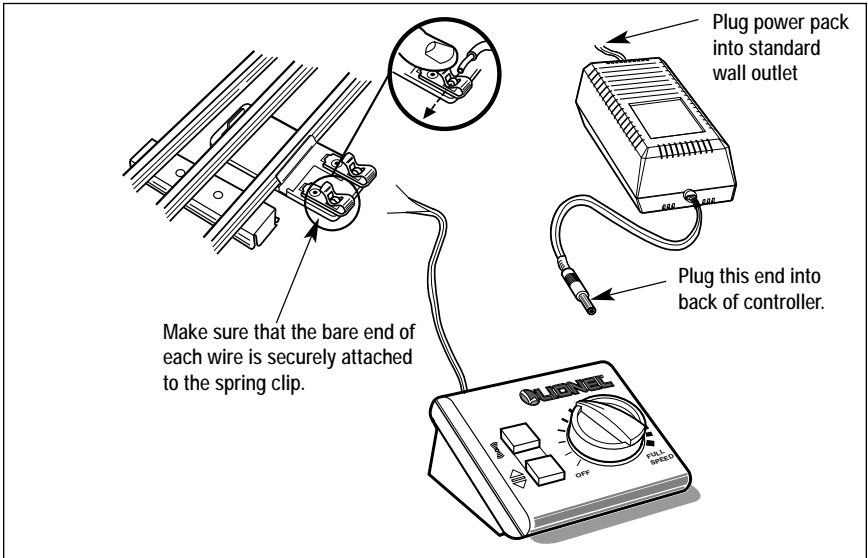


Figure 5. Controller connections

Controller operations

Controller functions

As you turn the throttle control knob to the right, power to the track is increased. Refer to Figure 6 for the location of the throttle control knob. When the indicator reaches the green band, there should be sufficient power to operate the locomotive. The farther into the green area the knob is turned, the faster your train will go. Remember that the greater the load on the engine (adding more cars for the engine

to pull, for example), the farther into the green the knob must be turned before it will operate the locomotive.

The yellow band indicates the average power range that the train will be operating in. The red band represents maximum power output.

Figure 6 illustrates the location and function of the LED and the whistle and direction buttons.

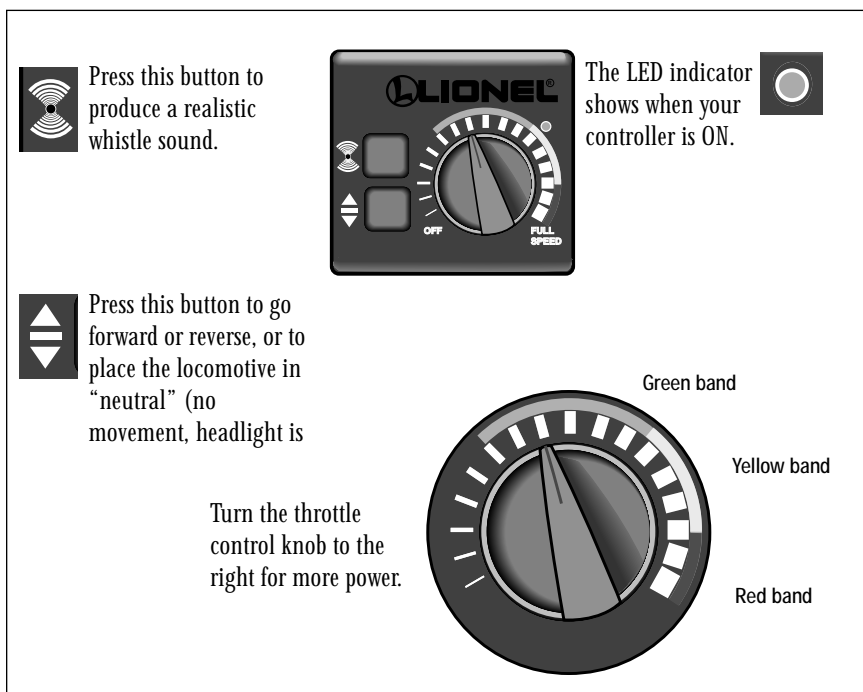


Figure 6. Controller functions

Controller operations

Controller and short circuits

Your Lionel power pack is listed by Underwriters Laboratories Inc. and has been carefully designed and tested to ensure peak performance. The controller is equipped with a built-in electronic circuit breaker that alternately cuts off and restores the flow of power to the track whenever a short circuit exists—for example, when the train derails. The circuit breaker's action continues until the cause of the short circuit is eliminated. This circuit breaker is incorporated into the controller to protect it from possible damage. It will not protect the locomotive or electrically operated accessories, so it's important to eliminate short circuits as soon as possible.

Note!

The power pack must be unplugged from the wall socket when a short circuit is noticed, and the short circuit must be corrected.

A short circuit is caused by a direct connection between the center rail and one of the outside rails or by a direct connection between bare wires. The axles of a derailed car or locomotive are the most frequent

cause of short circuits, so make sure that all wheels are properly set on the rails. Some other causes of short circuits might be staples, nails, paper clips, or other metallic objects lying across the rails, or two bare wires touching each other.

If too many cars or accessories are used, your controller will exceed its power limit and begin to cycle on and off. To correct this problem, cars or accessories must be removed before normal operation can resume. For more power, see the line of Lionel high-output transformers at your Authorized Lionel Value Added Dealer.

The same condition can occur if the power is turned up too quickly. This also could cause your train to move too fast and derail.

After your power pack has been operating for a while, you will find it warm to the touch. It is the nature of all electrical power equipment to become warm when in use. If your controller is loaded to capacity, it is a good idea to let it cool down after an hour or two of continuous use. Unplug the power pack from the wall when the controller is not in use.

Train operation

Running your locomotive with a Lionel transformer

1

Place your locomotive on Lionel or Lionel-compatible track. (0-27 minimum radius)

- **With track power OFF**, connect the drawbar between the locomotive and tender. See Figure 7.

Caution!

Add smoke fluid to your locomotive's stack to prevent damage to the smoke unit. See page 14.

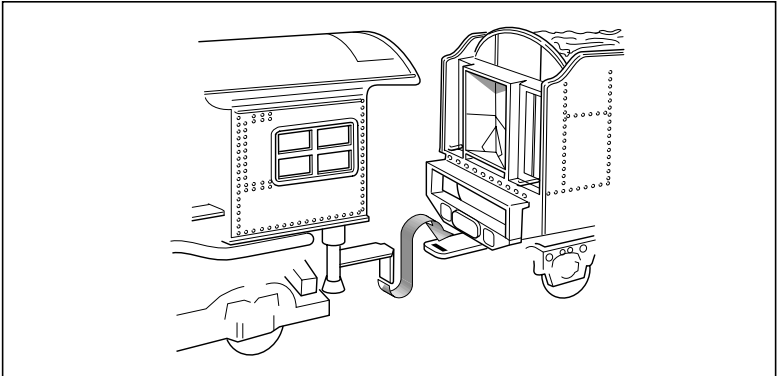


Figure 7. Drawbar connection

2

Power up your locomotive with your transformer.

- **Your locomotive is designed to operate on 7-15 volts alternating current.** Virtually all Lionel and Lionel-compatible alternating-current transformers are suitable.

Note!

Do not power your locomotive with direct current (DC) transformers. The locomotive was designed for use with alternating current (AC) transformers only.

3

Move 'em out!

- **Get your locomotive moving.** To sequence the reversing unit, press the Direction button on your transformer, or turn the throttle OFF and back ON again until you are moving in the desired direction.
- **Adjust track voltage** until your locomotive moves at your desired speed.

Train operation

Reverse unit procedure

The electronic reverse unit inside your Lionel locomotive acts like the transmission in your car. When you apply power to the track, the locomotive moves in the direction specified by the reverse unit—or it sits in neutral, awaiting another power interruption. Power interruptions are the signal that tells the reverse unit to sequence to the next operational state.

To interrupt power and sequence the locomotive's reverse unit, press the direction control button or turn the throttle to the OFF position and ON again. Refer to Figure 9 for the location of this button.

The reverse unit alternates between three states: forward, neutral, and reverse.

Also, the locomotive can be “locked” into a certain mode of operation by throwing the switch located on the underside of the frame (see Figure 8 above). When the switch is thrown to the OFF position, the locomotive

will be locked in the next mode of operation in the sequence. For instance, if the locomotive is moving forward, then is stopped and the switch is thrown back, the locomotive will be “locked” in neutral. If the switch is thrown back while the locomotive is under power, the locomotive will remain in the mode it was in when the switch was thrown. The controller direction control will then have no affect on the direction of the locomotive.

Additionally, this reverse unit has a “power-up reset” feature. If the locomotive sits without power for a short period of time, the reverse unit

will automatically reset and start in the forward direction when the transformer is turned on or “powered up,” regardless of the locking switch position. If the locking switch is in the OFF position, the locomotive will start in the forward direction and be “locked” there.

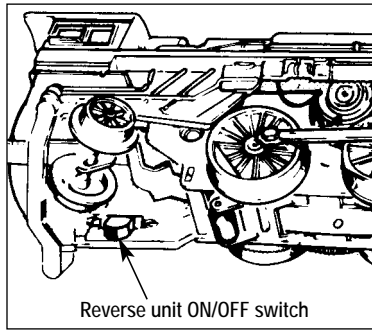


Figure 8. Switch location

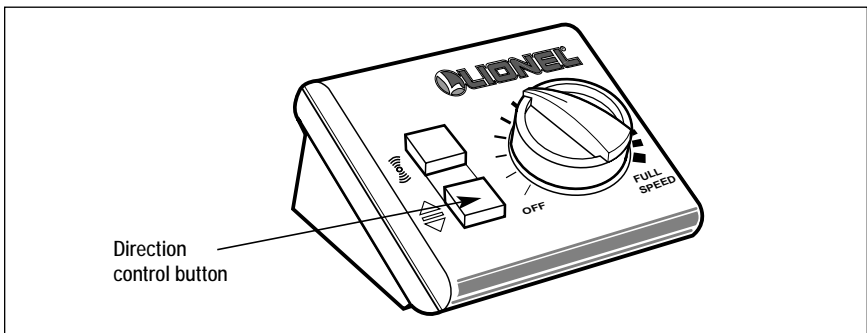


Figure 9. Direction control button location

Train operation

Tire-Traction

Your locomotive is equipped with Tire-Traction. This means that one of the drive wheels is fitted with a rubber Traction Tire to enhance tractive effort so your locomotive can pull many cars at once.

Lionel locomotives with Tire-Traction grip the track, enabling them to pull heavy loads at higher speeds. Replacement Traction Tires are available at your authorized Lionel Service Center.

Coupling

When coupling your cars, at least one of the mating couplers must be open as shown below at the left. Simply press down on

the lock release to open the coupler, then push the cars toward each other until they lock together as illustrated in Figure 10.

Note! Keep in mind that it's easier to couple cars on a straight stretch of track.

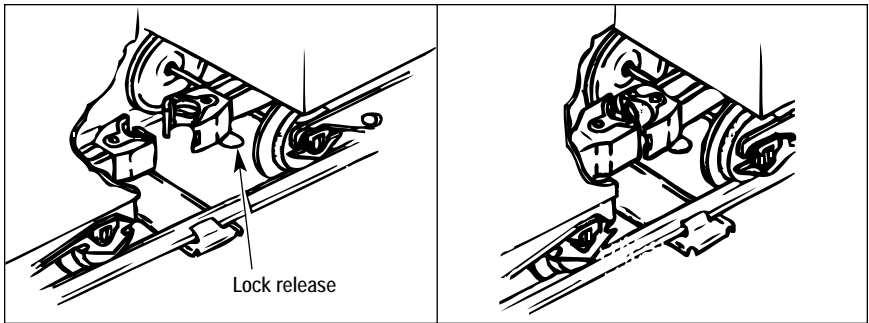


Figure 10. Coupler operation

Train operation

Operating your Musical Boxcar

Your Musical Boxcar requires one 9-volt alkaline battery. To install the battery, open the door, attach the battery harness to the battery, then slide the battery into the holder clip. See Figure 12. If you have a

difficult time working in that confined space, simply pull away the sides of the body and lift it away.

To play the Christmas music, throw the switch on the bottom of the car.

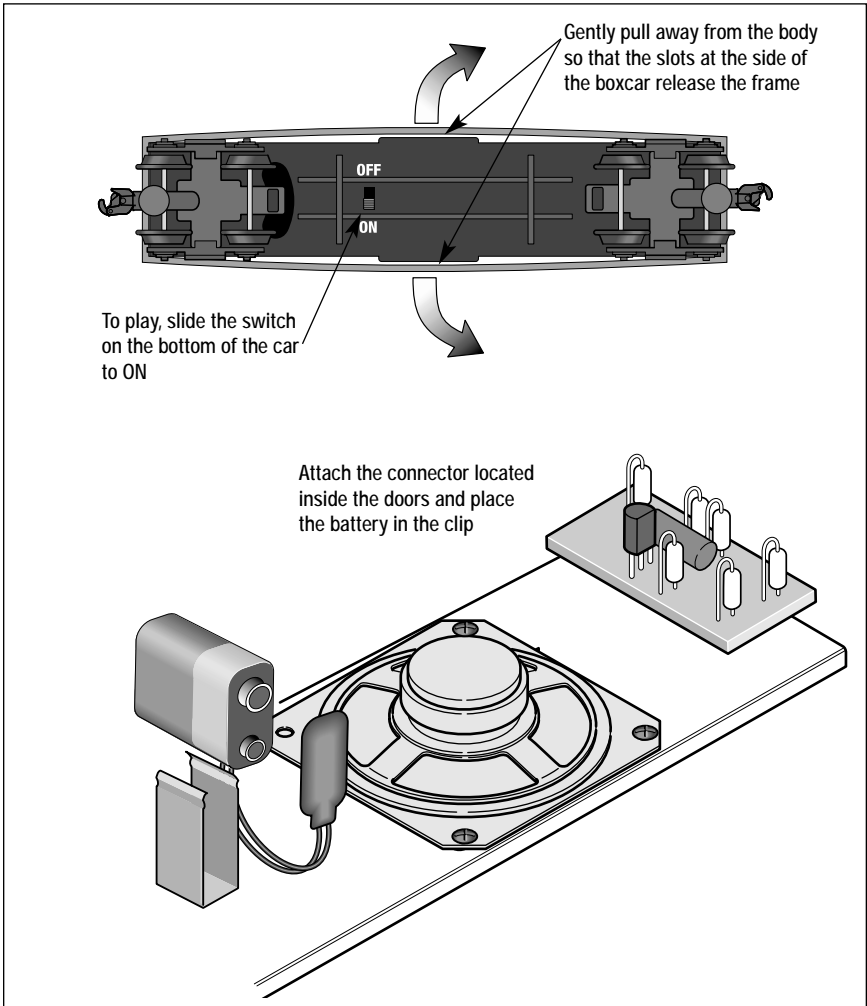


Figure 12. Battery installation and switch location

Maintaining and servicing your set

Adding smoke fluid to your 4-4-2 locomotive's smoke generator

Your 4-4-2 locomotive is equipped with a smoke generator that produces safe, clean white smoke during operation.

The smoke generator requires the periodic addition of Lionel smoke fluid in order to function. Pierce the smoke fluid tube end with a pin, then add 4 to 8 drops of fluid directly into the locomotive's stack. Smoke

production commences momentarily, faster if you run your locomotive at high speed. When smoke production wanes, add more fluid (4 to 8 drops). An idle locomotive will not smoke.

Smoke production is greater at higher voltages and when the locomotive is pulling a heavy load or a long consist.

Caution! Always keep a small amount of smoke fluid in the locomotive's smoke generator; the generator's element can become damaged if operated without smoke fluid. This is particularly true if your locomotive sits in neutral for an extended period of time without smoke fluid in the generator.

Maintaining and servicing your set

Lubricating your 4-4-2 locomotive

Help your 4-4-2 steam locomotive lead a long and productive life on your railroad by maintaining it properly.

We recommend that you purchase a Lionel Lubrication and Maintenance Kit (no. 6-62927), available from your Lionel dealer. Two basic rules to keep in mind: never over-lubricate (a small amount will do) and

avoid getting grease or oil on the locomotive's wheels, contact rollers, or your track.

You'll know your locomotive requires lubrication when visual inspection reveals dryness on the parts indicated in Figure 14. Remove accumulated dirt and dust before lubricating, and always lubricate any

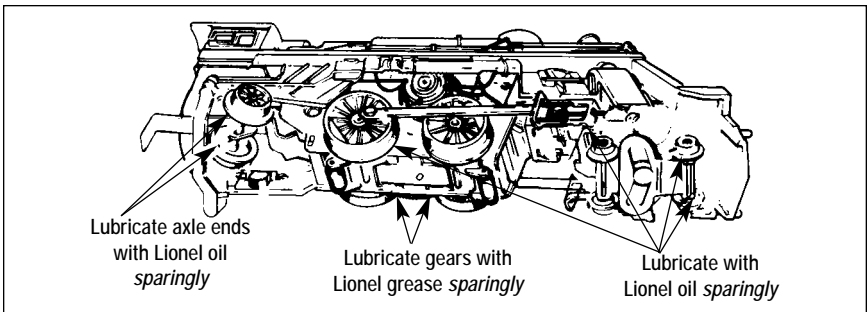


Figure 14. Lubrication points

Maintaining and servicing your set

Replacing your 4-4-2 locomotive's headlamp

Your 4-4-2 locomotive lights the way with its operating headlight. During the course of normal operation, the lamp may require replacement. Refer to Figure 15 as you replace the lamp.

1. Remove the two front truck screws and carefully slide the front truck assembly off the linkage rods.
 2. Lift the smoke unit out far enough from the cab to allow lamp extraction.
 3. Pull the lamp straight out and replace it with Lionel part no. 600-0161-300, available from your nearest Lionel Authorized Service Center or from Lionel
4. Reinstall the smoke unit, making sure that the smoke stack lines up with the cab top opening.
 5. Reassemble the front truck, making sure that the linkage rods go into the holes in the front truck. The lug wire from the smoke unit must be reinserted through the slot in the front truck assembly and secured under one of the two front screws. Tighten the screws firmly, but do not over tighten them.

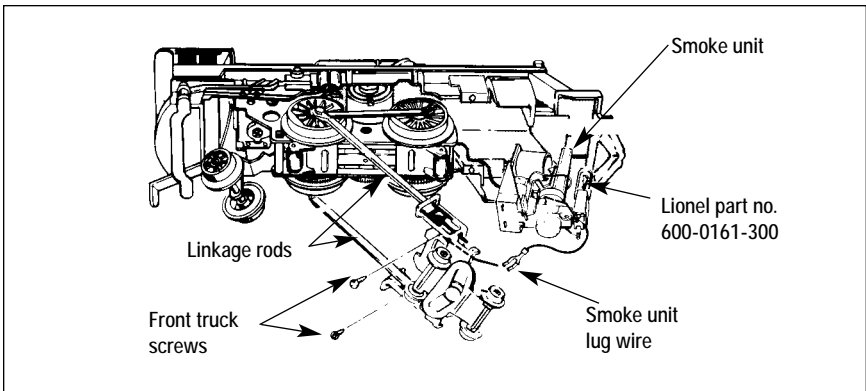


Figure 15. Headlight replacement

Maintaining and servicing your set

Lubricating the gear on your Chase Gondola

Your animated gondola is equipped with a gear drive mechanism that propels the two figures around the crates in the center of the gondola when the car is moving.

Occasionally, the worm gear may need lubrication. You can determine this by simply inspecting it periodically. If you see

little or no lubrication on the worm gear, it's time to add a small amount lubricant. See Figure 13. We recommend that you purchase the Lubrication/Maintenance Set (6-62927), available at your Authorized Lionel Dealer.

Note! If the crate load retainers become detached, make sure that they are pushed back down completely.

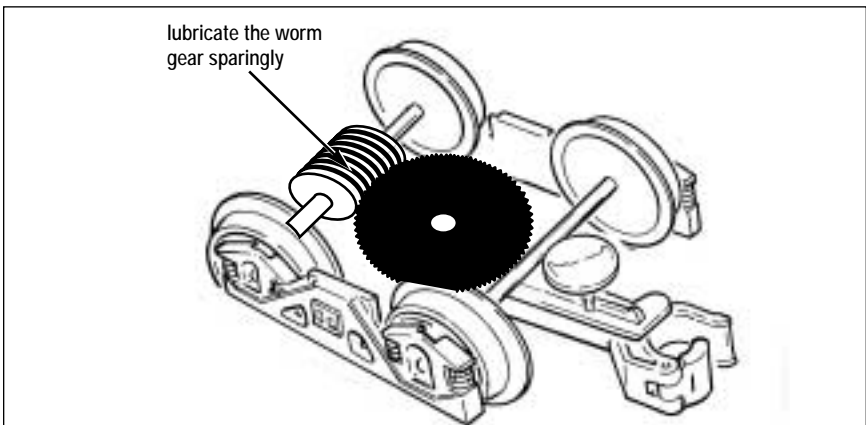


Figure 13. Chase Gondola worm gear lubrication

Maintaining and servicing your set

Replacing your Square Window Caboose lamp

During the course of normal operation, the lamp inside your caboose may require replacement. Follow these steps and refer to Figure 16.

1. Pull out the end frame tab from the slot formed by the caboose body and roof. The end frames are hinged to the platform. This allows the end frame to bend downward, away from the body.
2. Lift off the roof from the window shell and body.
3. Remove the window shell. The window shell is held in place by four tabs on the sides of the shell (two on either side) that lock into the windows on the caboose. To remove the window shell,
4. Remove the lamp, pull it straight up. Replace it with Lionel bulb no. 600-8352-311, available at your local Lionel Authorized Service Center or Lionel Service.
5. Insert the window shell back into the body, making sure that the tabs snap into the windows.
6. Insert the roof into the window shell.
7. Fit the tabs on the end frames into the corresponding slots formed by the roof and body.

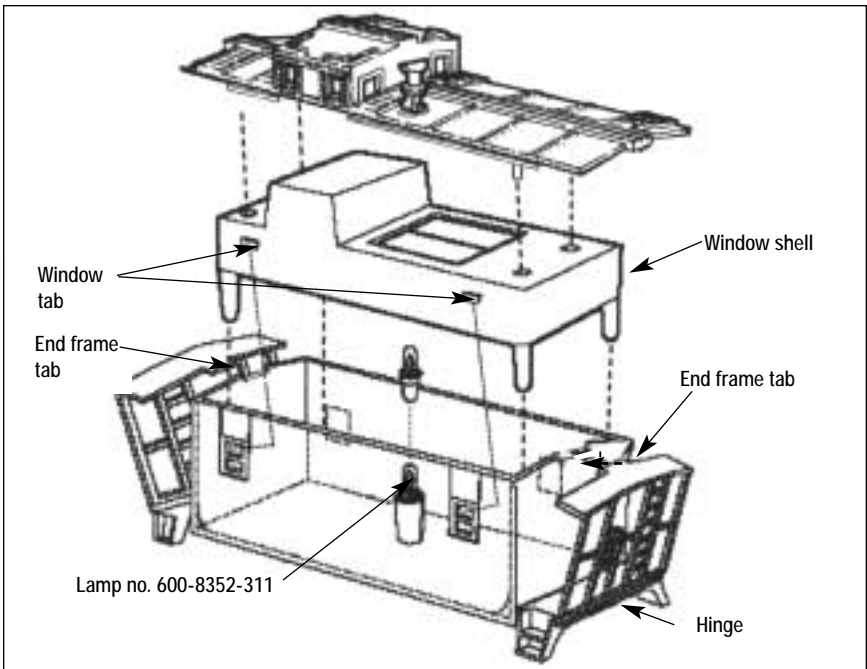


Figure 16. Caboose lamp replacement

Notes

Limited Warranty/Lionel Service

This Lionel product, including all mechanical and electrical components, moving parts, motors and structural components, except for light bulbs, is warranted to the original consumer-purchaser, for **one year** against original defects in materials or workmanship when purchased through an authorized Lionel merchant.

This warranty does NOT cover normal wear and tear, light bulbs, defects appearing in the course of commercial use, or damage resulting from abuse or misuse of the product by the purchaser. Transfer of this product by the original consumer-purchaser to another person voids this warranty. Modification of this product voids this warranty.

Any warranted product which is defective in original materials or workmanship and is delivered by the original consumer-purchaser to Lionel L.L.C. or an authorized Lionel L.L.C. Service Center, together with proof of original purchase will, at the option of Lionel L.L.C., be repaired or replaced, without charge for parts or labor. In the event the defective product cannot be repaired, and a replacement is not available, a refund of the original purchase price will be granted. Any products on which warranty service is sought must be sent freight or postage prepaid, as transportation and shipping charges are not covered by the warranty.

In no event shall Lionel L.L.C. be liable for incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This limited warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Instructions for Obtaining Service

If service for this Lionel L.L.C. product is required, bring the item, along with your dated sales receipt and completed warranty information to the nearest Authorized Lionel Service Center.

Your nearest Lionel Service Center can be found by calling 1-800-4-Lionel, or by accessing our Website at www.lionel.com.

If you prefer to send your product back to Lionel L.L.C. for repair in Michigan, you must first call 586-949-4100 or FAX 586-949-5429, or write to Customer Service, P.O. Box 748, New Baltimore, MI 48047-0748, stating what the item is, when it was purchased and what seems to be the problem. You will be sent a return authorization letter and label to ensure your merchandise will be properly handled upon receipt.

Once you have received your return authorization and label, make sure that the item is packed to prevent damage during shipping and handling. We suggest that you use the product's original packaging. This shipment must be prepaid and we recommend that it be insured.

Please make sure you have followed all of the above instructions carefully before returning any merchandise for service. You may choose to have your product repaired by one of our Authorized Lionel Service Centers after its warranty has expired. A reasonable service fee will be charged.

Warranty Information

Please complete the information below and keep it, along with your dated sales receipt. You must present this and your dated sales receipt when requesting warranty service.

Name _____

Address _____

Place of Purchase _____

Date of Purchase _____

Product Number _____

Product Description _____

