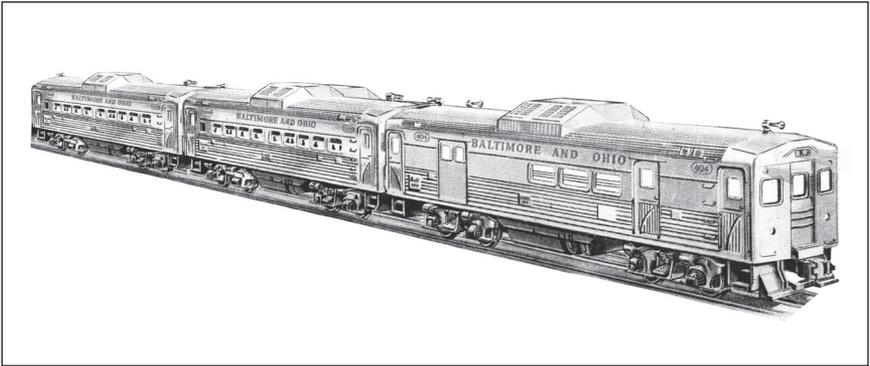


Instructions for Operating **LIONEL NO. 2276W BUDD RDC 3-CAR COMMUTER SET**



Lionel No. 2276W Budd Commuter Set is a realistic replica of Rail Diesel Cars (RDC) made by the Budd Company for B&O commuter service.

Lionel's set of Budd RDC commuter cars is built to run on either "O" or "O27" track. The lead car is powered by a single worm-drive motor driving two magne-traction axles. All the cars in the set are illuminated, and all the cars carry exciting colors and markings of the B&O and real Budd Company insignia.

LIONEL "MAGNE-TRACTION"

The powered locomotive is equipped with "Magne-Traction" which means that its driving wheels are magnetized by powerful Alnico magnets inserted in the driving axles in order to grip the track and enable the locomotive to pull heavier loads and climb steeper grades without slipping on the track. Be careful not to let pins, paperclips, carpet tacks or other small iron objects come in contact with the locomotive or they will be attracted to the wheels, gears, or axles and interfere with the action of the locomotive. NOTE: "Magne-Traction" is not effective on aluminum, brass or other non-magnetic rails. The powered locomotive also includes two traction tires, which will improve traction on both magnetic and non-magnetic rails.

#2276W BUDD RDC 3-CAR COMMUTER SET INCLUDES:

- 1-#404 Powered mail and baggage car
- 2-#2559 Non-powered passenger cars

LOCOMOTIVE FEATURES:

Powered Mail and Baggage Car

- Electronic E-Unit with Direction Lock
- Transformer controlled forward, neutral and reverse operation
- Electronic horn and bell with volume control
- Dual operating couplers
- Powerful Pullmor motor
- Magne-Traction track gripping system
- Traction tires
- Lighted interior
- Minimum Curve: 0-31

Non-Powered Passenger Car

- Dual operating couplers
- Lighted interior
- Passenger silhouettes in windows

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Lionel®, *TrainMaster®*, *Odyssey®*, *RailSounds®*, *CrewTalk™*, *TowerCom™*, *DynaChuff™*, *StationSounds™*, *Pullmor®*, *ElectroCoupler™*, *Magne-Traction®*, *CAB-1® Remote Controller*, *PowerMaster®*, *Lionel ZW®*, *ZW®*, *PowerHouse®*, *TMCC®*, *Lionelville™*, *Lockon®*, *Wireless Tether™*, *LionMaster®*, *FatBoy™*, *American Flyer®*, *TrainSounds™*, *PowerMax™*, *LEGACY™*, *PowerMax™ Plus*, *Odyssey II™*, *LEGACY RailSounds™*

The name FasTrack® is used with permission from Pitsco, Inc.

Transformer operations

RUNNING YOUR LOCOMOTIVE WITH A LIONEL TRANSFORMER

Caution!

Do not power your locomotive with direct current (DC).
Damage to sensitive electronic components may occur.

1

PLACE YOUR TRAIN SET ON LIONEL OR LIONEL-COMPATIBLE O GAUGE TRACK.

2

THROTTLE UP YOUR LOCOMOTIVE WITH YOUR TRANSFORMER.

Your locomotive is designed to operate on 8-18 volts alternating current. Virtually all Lionel and Lionel-compatible alternating current transformers are suitable.

Throttle up your locomotive and it will begin to move in the forward direction. Adjust track voltage until your locomotive moves at your desired speed. To increase speed, increase track voltage. To decrease speed, decrease voltage.

Pressing the DIRECTION button on your transformer will sequence the Electronic E-unit to the next operating state in the repeating sequence of: forward, neutral, reverse, neutral, and so on.

To stop the locomotive, cycle the Electronic E-unit to neutral or turn-off track power.

Transformer operations

LOCKING YOUR POWERED LOCOMOTIVE INTO FORWARD DIRECTION ONLY OPERATION

When the Electronic E-unit Direction Lock switch is in the RUN position, your powered locomotive sequences through a repeating pattern of operations: forward, neutral, reverse, neutral, and so on.

To lock your powered locomotive into forward direction only operation, you can deactivate the Electronic E-unit's sequencing function. Follow the steps below and refer to figure 1 for the location of the Electronic E-unit Direction Lock switch.

Note! Always turn off track power before removing the locomotive from the track.

1. Turn off track power, wait three seconds, and remove the locomotive from the track. Now slide the Electronic E-unit Direction Lock switch to the LOCK position. Your locomotive is now locked into forward direction only operation.
2. Place your locomotive back on the track. Power up the track and press the direction button on your transformer to confirm that the locomotive is now locked into forward direction only operation.

To restore the forward-neutral-reverse sequence, turn off power and remove your locomotive from the track. Slide the Electronic E-unit Direction Lock switch back to the RUN position. Place the locomotive back on the track and restore track power.

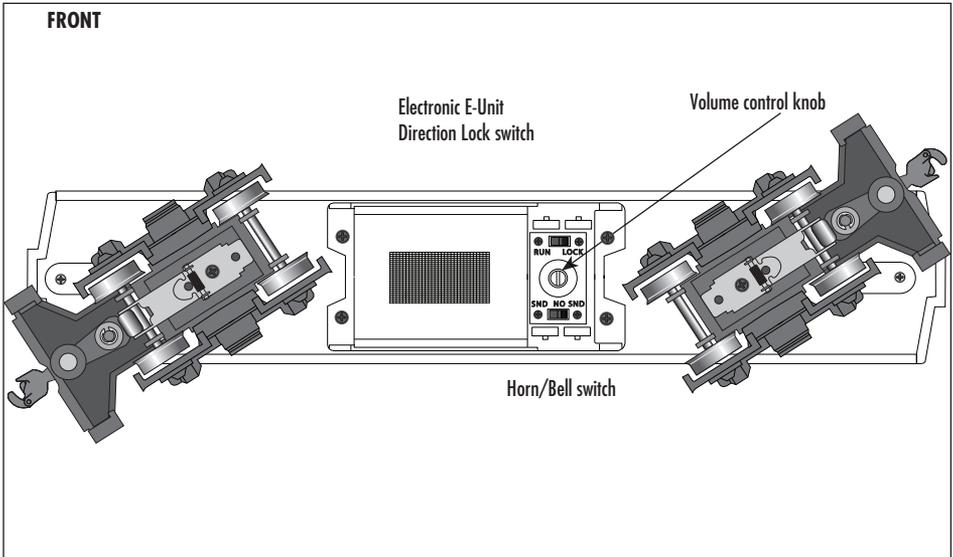


Figure 1. Switch locations

Transformer operations

USING YOUR LOCOMOTIVE'S MAGNETIC COUPLERS

Your Lionel locomotives are equipped with operating magnetic knuckle couplers, a revolutionary design first introduced by Lionel in 1945.

Lionel magnetic couplers react to the magnetic field generated by a Lionel Remote-Control Track section (available separately, 6-65149 or 6-12746 for O-27 gauge; 6-65530 for O gauge; or 6-12020 and 6-12054 for FasTrack layouts).

Place your locomotive's coupler trigger disc over the central coil of a Remote-Control Track section and press UNCOUPLE on the controller. The magnetic field pulls the disc downward, and the knuckle opens.

One operating technique favored by Lionel railroaders is the "moving uncouple." Press the UNCOUPLE button as the locomotive passes over a Remote-Control Track section. The magnetic field will open the coupler; the consist remains behind as the locomotive moves on. But be careful—the speed of a newly uncoupled and moving locomotive can increase dramatically.

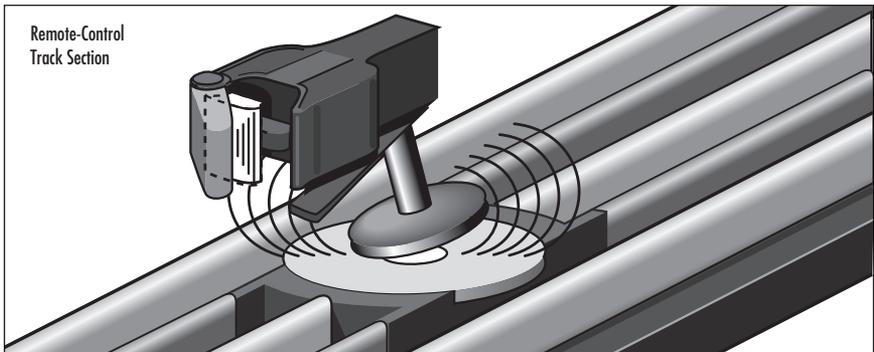


Figure 2. Magnetic coupler operation

Transformer operations

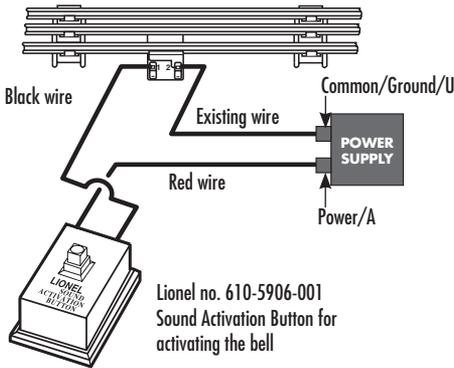
SOUNDING YOUR LOCOMOTIVE'S ELECTRONIC HORN AND BELL

Use the HORN and BELL buttons on your transformer to activate the locomotive's horn and bell sounds.

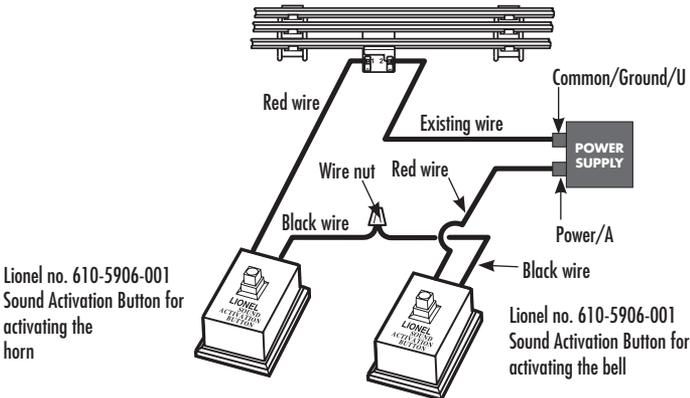
If your transformer lacks HORN and BELL buttons, you will need to install Lionel no. 610-5906-001 Sound Activation Buttons (available separately) to activate the locomotive's horn and bell sounds.

Connect the buttons as shown below. Be sure that all track power passes through the Sound Activation Button(s).

FOR AC TRANSFORMERS LACKING A BELL BUTTON



FOR AC TRANSFORMERS LACKING BELL AND HORN/WHISTLE BUTTONS



To adjust the volume of the horn and bell sounds, use the volume control knob located on the underside of the locomotive. See Figure 1 on page 4 for the location of the Volume Control Knob.

To deactivate the electronic horn and bell sounds, slide the HORN/BELL switch to the NO SND position. See Figure 1 on page 4 for the location of the HORN/BELL switch.

Operating and servicing your set

LUBRICATING YOUR LOCOMOTIVES

The life and performance of your locomotives depends to a considerable extent upon proper care and lubrication of the motor and other moving parts. Since your locomotives might have been stored on the dealer's shelves for some time, be sure to lubricate them according to the lubrication chart in Figure 3 on page 8 before running them for the first time. Put a small dab of Lionel Lubricant at all points marked "L". Using the point of a pin or a thin wire, put a drop of Lionel Oil at points marked "O". Lubricate carefully but never to excess. A small amount of oil or lubricant, properly applied, goes a long way. Be careful not to get any oil or lubricant on the running surfaces of the wheels or on the rails, or your locomotive will lose traction and do not lubricate locomotive rollers.

The motor requires occasional lubrication with a few drops of light machine oil. See Figure 4 on page 9. To get at the motor the locomotive body must first be removed by removing the screws from the underside of the frame at both ends of the powered locomotive.

A complete Lubrication and Maintenance Kit No. 927 (6-62927) which contains all the material and equipment necessary to keep your outfit in top notch condition may be obtained from your authorized Lionel dealer or service station.

The locomotives are illuminated by 14 volt, bayonet-base lamps (No. 600-0363-300), available at your authorized Lionel dealer or service station.

To replace your lamps, see the instructions on page 10.

Operating and servicing your set

LUBRICATING YOUR LOCOMOTIVE

Help your Lionel locomotives lead a long and productive life on your railroad by maintaining them properly. To keep your locomotives lubricated, we recommend that you purchase a Lionel Lubrication and Maintenance Kit (6-62927), available from your authorized Lionel dealer or service station.

When you find that the lubrication points illustrated in Figure 3 appear dry, lubricate your powered and non-powered locomotives after you have removed any accumulated dirt and dust. There are two basic rules to keep in mind when you are lubricating your locomotive: use only a small amount of lubrication and avoid getting grease or oil on your locomotive's wheels, roller pick-ups, or the track.

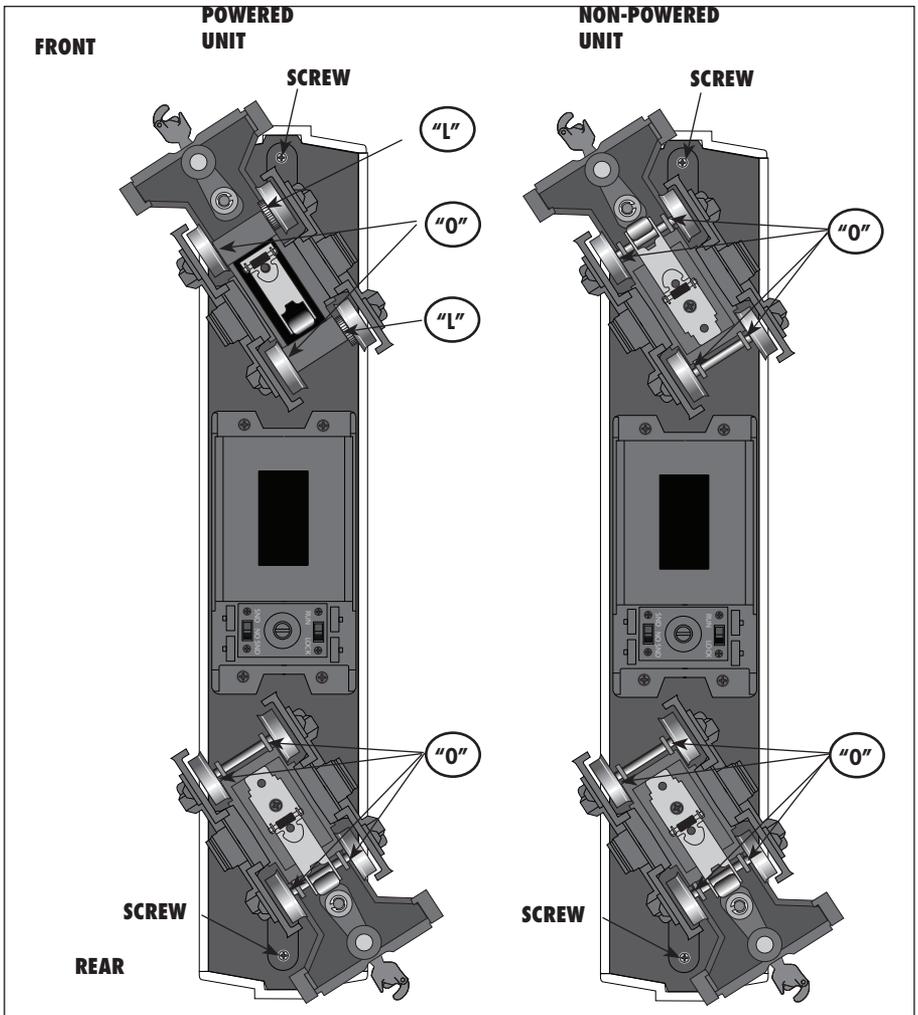


Figure 3. Underside details and lubrication points

Operating and servicing your set

LUBRICATING YOUR POWERED LOCOMOTIVE'S PULLMOR MOTOR ARMATURE

Your powered locomotive will require occasional lubrication of its Pullmor motor armature. If you hear excess noise during operation, or if the locomotive slows down intermittently, you may need to oil the top armature bearing.

1. Remove the locomotive's body screws. See Figure 3 on page 8 for the screw locations. Carefully lift the shell away from the frame.
2. Apply a small amount of Lionel oil (two drops) in the hole at the top of the motor. See Figure 4.
3. Replace the body, securing it with the two body screws.

Note! To prevent damage to the locomotive body, do not overtighten the body screws.

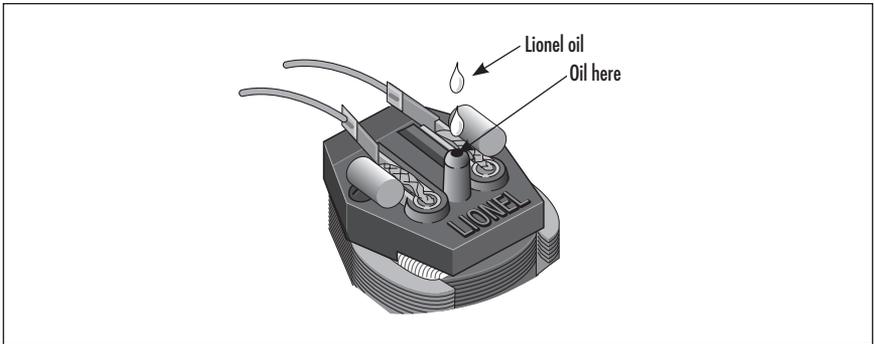


Figure 4. Pullmor motor lubrication

Operating and servicing your set

REPLACING YOUR LOCOMOTIVE'S LAMPS

Your locomotives are each illuminated by three 14-volt lamps. During the course of normal operations, they may require replacement.

1. Remove the locomotive's body screws. See Figure 3 on page 8 for the screw locations. Carefully lift the shell away from the frame.
2. To remove the lamp, gently push the lamp down and turn counter counter clockwise to disengage the lamp from the socket
3. Replace it with Lionel part no. 600-0363-300, available from your authorized Lionel dealer or service station, or from Lionel Customer Service in Chesterfield, MI. See **Instructions for Obtaining Service** on page 12 for more information.
4. Replace the body, securing it with the two body screws.

Note! To prevent damage to the locomotive body, do not overtighten the body screws.

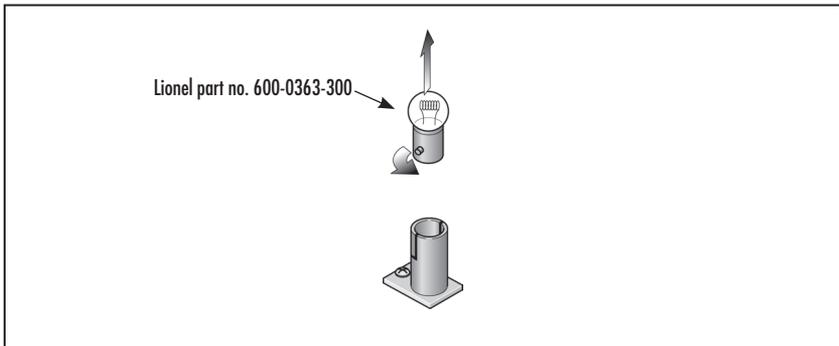


Figure 5. Lamp replacement

Operating and servicing your set

REPLACING THE TRACTION TIRES

Your powered locomotive is equipped with traction tires to increase the tractive effort of your locomotive and allow it to pull more cars at one time.

During the course of normal operations, the traction tires may become worn out. Replacement traction tires are included with the locomotive. We recommend that you have the traction tires (610-6001-065) replaced by an authorized Lionel dealer or service station because the truck and side frames must be removed to access the wheels. See **Instructions for Obtaining Service** on page 12 for more information.

Lionel Limited Warranty Policy & Service

This Lionel product, including all mechanical and electrical components, moving parts, motors and structural components, with the exception of **LIGHT BULBS, LED's & TRACTION TIRES** are warranted to the original owner-purchaser for a period of **one year from the original date of purchase** against original defects in materials or workmanship when purchased through a **Lionel Authorized Retailer***.

This warranty does **NOT** cover the following:

- Normal wear and tear
- Light bulbs or LED's
- Defects appearing in the course of commercial use
- Damage resulting from abuse/misuse of the product

Transfer of this product by the original owner-purchaser to another person voids this warranty in its entirety. Modification of this product in any way; visually mechanically or electronically, voids the warranty in its entirety.

Any warranted product which is defective in original materials or workmanship and is delivered by the original owner-purchaser (this warranty is non-transferrable) to Lionel LLC or any Lionel Authorized Service Station **MUST** be accompanied by the original receipt for purchase (or copy) from an **Authorized Lionel Retailer***, will at the discretion of Lionel LLC, be repaired or replaced, without charge for parts or labor. In the event the defective product cannot be repaired, and a suitable replacement is not available, Lionel will offer to replace the product with a comparable model (**determined by Lionel LLC**), if available. In the event a comparable model is not available the customer will be refunded the original purchase price (requires proof of purchase from the **Authorized Lionel Retailer*** it was originally purchased). Any products on which warranty service is sought must be sent freight or postage prepaid (Lionel will refuse any package when postage is due). **Transportation and shipping charges are not covered as part of this warranty.**

NOTE: Products that require service that do not have a receipt from an LIONEL AUTHORIZED RETAILER* will be required to pay for all parts required to repair the product (labor will not incur a charge) providing the product is not older than 3 years from date of manufacture and is within 1 year from date of purchase. A copy of the original sales receipt is required.

In no event shall Lionel LLC be held 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 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 LLC product is required; bring the item, along with your DATED sales receipt and completed warranty information (at the bottom of this page) to the nearest Lionel Authorized Service Station. Your nearest Lionel Service Station can be found by calling 1-800-4-LIONEL or by accessing the website at www.lionel.com.

If you prefer to send your Lionel product directly to Lionel, for repair you must FIRST call 586-949-4100 extension 9105 or FAX Lionel at 586-949-5429 or write to Customer Service, 26750 Twenty Three Mile Road, Chesterfield, MI 48051-2493. Please have the 6-digit Lionel product number, the date of original purchase, the dealer where the item was purchased and what seems to be the problem. You will receive a return authorization (RA) number to ensure your merchandise will be properly tracked and handled upon receipt at Lionel LLC.

Once you have your Return Authorization (RA) number, make sure the item is packed in its original Styrofoam inner container which is placed inside the original outer display box (this will help prevent damage during shipping and handling). This shipment MUST be prepaid and we recommend that it be insured with the carrier of your choice.

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 Lionel LLC's Authorized Service Stations after its warranty has expired. A reasonable service fee should be expected once the product warranty has expired.

Warranty Information

Please complete the information below and keep it, along with your **DATED ORIGINAL SALES RECEIPT**. You **MUST** present this form **AND** your **DATED SALES RECEIPT** when requesting warranty service.

*A complete listing of Lionel Authorized retailers can be found by calling 1-800-4-LIONEL or by visiting our website at www.lionel.com.

Products that are more than 3 years old, from date of manufacture, are not applicable for warranty coverage, even if they have never been sold prior to this date. (Under no circumstance shall any components or labor be provided free of charge.)

Name _____

Address _____

Place of Purchase _____

Date of Purchase _____

Product Number _____

Product Description _____

