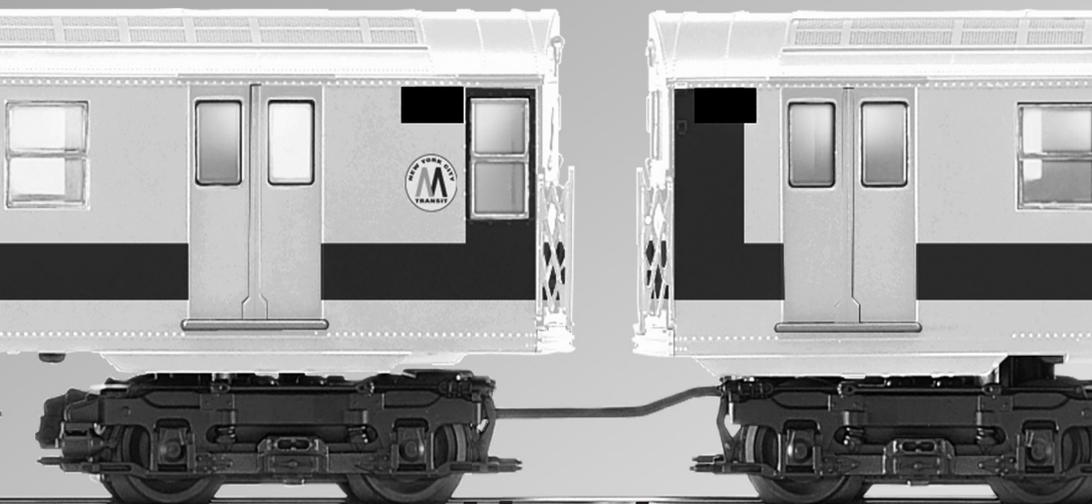




OFFICIALLY
LICENSED

72-5595-250
7/10



***Lionel
New York City
Transit Authority R16
Add-On Cars
Owner's Manual***

Featuring



Congratulations!

Congratulations on your purchase of the Lionel R16 Subway 2-pack add-on set. Under license from the New York City Metropolitan Transportation Authority, the set features cars with operating doors, prototypical lighting and destination boards.

Features of these cars

- **LEGACY Control System compatible—able to run with the new LEGACY Control System, in the TrainMaster Command Control environment, or in the conventional environment with only a standard transformer**
- **Hinged roof panels on the top of each car houses interior light switch and door lock switches for easy adjustments without having to remove the car from the track**
- **Operator-controlled opening side doors on all cars**
- **Authentically detailed interiors**
- **Interior lighting in all cars**
- **Directional destination signs**

Table of contents

Quick Start	
LEGACY Control system operations	4
TrainMaster Command Control operations	5
Transformer operations	5
LEGACY Control System operations—overview	
Operating the car doors in the LEGACY environment	6
Switch function overview	
Switch overview	7
TrainMaster Command Control operations	
TrainMaster Command Control operations	8
Operating your locomotive in the Command Control environment	8
Operating the car doors in the TMCC environment	8
Conventional transformer operations	
Operating your Subway in the conventional environment	9
Operating the car doors in the conventional environment	9
Maintaining and servicing your locomotive	
Lubricating your Subway	10
Servicing your Subway's lamps	11
Limited Warranty/Lionel Service	12

“New York City Transit,” “MTA,” the “TA” symbol and associated terms and images are trademarks of the Metropolitan Transportation Authority.

The following Lionel marks are used throughout this catalog and are protected under law. All rights reserved.

Lionel®, *LEGACY™*, *TrainMaster®*, *Odyssey®*, *RailSounds®*, *CrewTalk™*, *TowerCom™*, *DynaChuff™*, *StationSounds™*, *Pullmor®*, *ElectroCoupler™*, *Magne-Traction®*, *CAB-1® Remote Controller*, *American Flyer®*, *Lionel ZW®*, *ZW®*, *MagniVision®*, *TMCC®*, *Lionelville®*, *Wireless Tether™*, *Powerhouse™*, *LionMaster®*, *Conventional Classics™*, *Postwar Celebration Series™*, *TruRail™*, *PH-1 Powerhouse®*, *Powermaster®*, *Powerstation-Powerhouse®*, *Accessory Motor Controller™*, *AMC™*, *Accessory Switch Controller™*, *ASC™*, *Action Recorder Controller™*, *ARC™*, *Track Power Controller 300™*, *TPC 300™*, *Track Power Controller 400™*, *TPC 400™*, *Block Power Controller™*, *BPC™*, *Operating Track Controller™*, *OTC™*, *FatBoy™*, *Lionel Lines®*, *Joshua Lionel Cowen Series™*, *Lockon®*, *TrainSounds™*, *MultiHorn™*, *MultiWhistle™*, *Choo-Choo™*

Quick Start

Your Subway two-pack of add-on cars are fully compatible with the R16 Subway set (6-31797, available separately).

In order for the add-on cars to couple together and work correctly with your Subway set, the add-on cars need to be the center pair of the three pair set.

Cars should be arranged by numbers as follows: 6411 (motorized unit) and 6398. Then the add-on cars numbers 6399 and 6403. Finally, cars numbers 6369 and 6341 as the last cars in the consist.

PLEASE SEE THE INSTRUCTIONS THAT CAME WITH YOUR R16 SUBWAY SET FOR DETAILED OPERATING INSTRUCTIONS AND AN EXPLANATION OF ALL THE FEATURES OF THE SUBWAY CARS.

Note! Power your Subway Set with an alternating-current (AC) transformer only. Using a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

LEGACY Control operations

For the finest operating experience, your Subway is fully compatible with the new LEGACY Control System.

To operate in LEGACY mode, you need a LEGACY Command Base and LEGACY CAB-2 Remote Controller. Both products are offered together in the LEGACY Command Set, 6-14295.

1. Turn off track power and plug in the LEGACY Base.
2. Place your Subway Set on Lionel or Lionel-compatible 0-36 or wider track and connect the drawbar and tether between the cars as illustrated in Figure 1. Note that the tether is 'keyed' and will plug in only one way. Connection is marked "UP" for clear identification.
3. Increase track power voltage to full power (no more than 19 volts AC).
4. Press ENG and 1 to address your Subway Set with your LEGACY CAB-2 Remote Controller.
5. Throttle up and move 'em out.

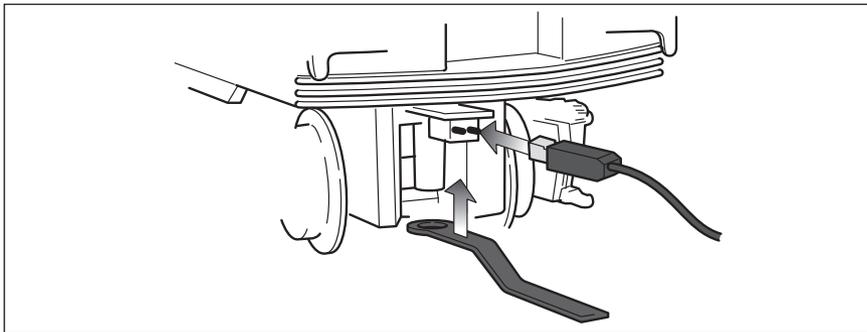


Figure 1. Connections

Quick Start

TrainMaster Command Control operations

To operate your Subway in the Command Control environment, you need a Command Base (available separately, 6-12911) and a CAB-1 Remote Controller (available separately, 6-12868).

1. Turn off track power and plug in the Command Base.
2. Place your Subway Set on Lionel or Lionel-compatible 0-36 or wider track and connect the drawbar and tether between the cars as illustrated in Figure 1 on page 4. Note that the tether is 'keyed' and will plug in only one way. Connection is marked "UP" for clear identification.
3. Increase track voltage to full power (no more than 19 volts AC).
4. Press ENG and 1 to address your Subway Set with your CAB-1 Remote Controller.
5. Throttle up and move 'em out.

Transformer operations

1. Place your Subway on Lionel or Lionel-compatible 0-36 or wider track and connect the drawbar and tether between the cars as illustrated in Figure 1 on page 4. Note that the tether is 'keyed' and will plug in only one way. Connection is marked "UP" for clear identification.
2. Power your Subway Set at 12-18 volts with your alternating current (AC) transformer.
3. Wait three to eight seconds until the Subway's headlights illuminate and the LEGACY RailSounds sound system starts up.
4. Move 'em out! Press the DIRECTION button on your controller, then throttle up.

LEGACY Control System operations—overview

OPERATING THE CAR DOORS IN THE LEGACY ENVIRONMENT

Each car features a lighted interior and opening doors. In the LEGACY environment, the doors are opened and closed using the CAB-2. Press the doors OPEN and CLOSE icon on the CAB-2 after loading the Subway module. See Figure 2.

Additionally, the doors can be opened and closed using the AUX1 and AUX2 and **F** and **R** coupler buttons, if you have not loaded the module to the CAB-2.

To open the left side doors, press **AUX1, F**. To close the doors, press **AUX2, F** then **AUX2**. To open the right doors, press **AUX1, R**. To close the doors, press **AUX2, R** then **AUX2**. You may choose to lock the doors from opening on a certain side using the switches located under the roof-top hatch on each car. The switches are illustrated in Figure 3 on page 7.

Note! Any open door will close automatically as the train begins to move, unless they are locked in the open position.

Note! As the Subway begins to move, the interior lights will dim

Note! A door error will occur any time that the doors try to move (either open or close) and do not complete the cycle after four tries. If this error occurs, the interior lights will begin to flash. This can be reset by using the **R** button on the CAB2 or **AUX1, O** on either the CAB1 or CAB2.

Note! Doors can only be opened on one side at a time. If the doors are open on one side, the doors on the other side will not open.

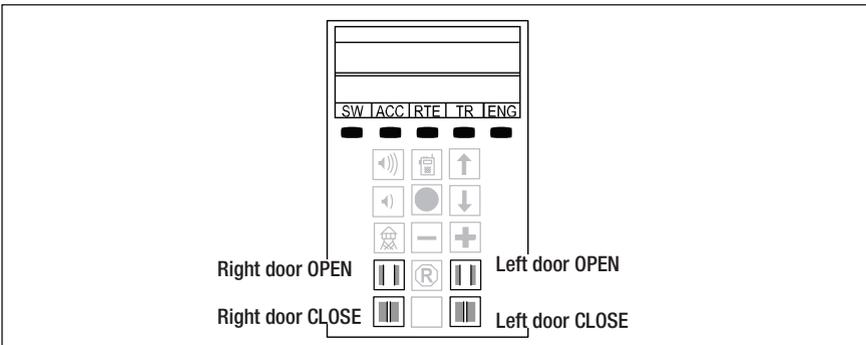


Figure 2. OPEN and CLOSE icon on the CAB-2

Locomotive switch function overview

Switch overview

Interior Lights Switch

This switch can be used to turn the lights off in the interior of the cars. This switch will not turn the lights on if they have been turned off with the CAB1 or CAB2.

Door Lock Switches

Used to lock the doors in the open or closed position. Move the door to the position desired and then move the switch to lock. The door will maintain that position until it is unlocked.

Note! If the doors on one side are locked in the open position, the doors on the other side will not operate.

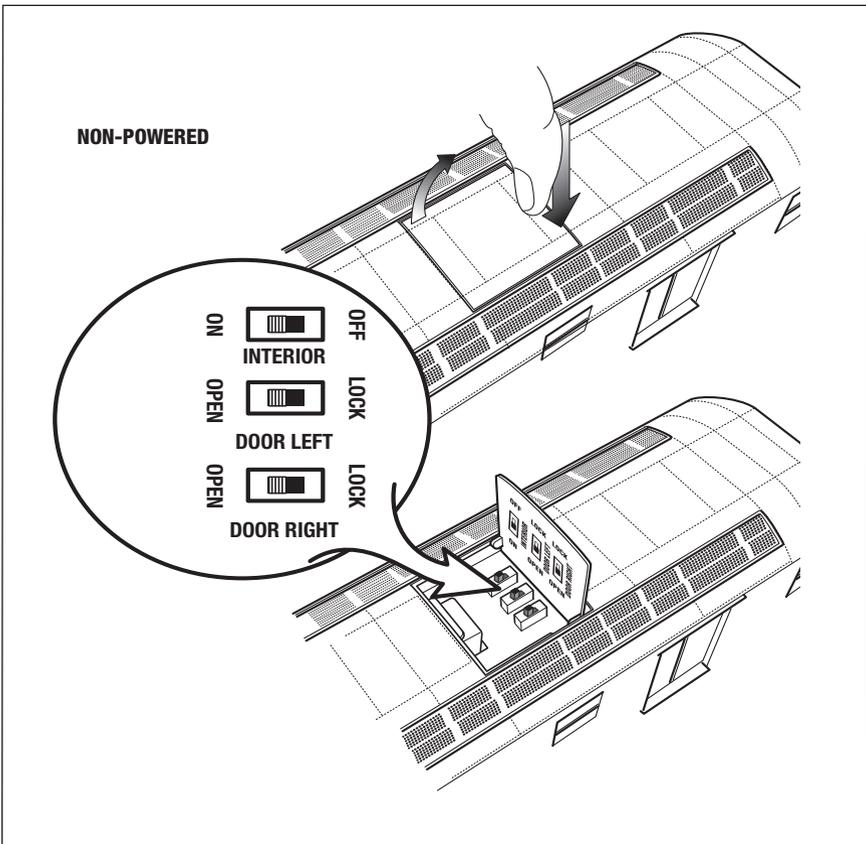


Figure 3. Switch locations

TrainMaster Command Control operations

TrainMaster Command Control operations

In addition to your transformer, to operate your Subway set in the Command Control environment, you need a Command Base (available separately, 6-12911) and a CAB-1 Remote Controller (available separately, 6-12868).

Your commands are sent by the CAB-1 Remote Controller to the Command Base, which then translates the command into digital code. That code is sent through the outside rails to your locomotive, which will not respond until it recognizes its unique ID#. TrainMaster Command Control gives you the power to operate multiple Command-equipped locomotives on the same track at the same time.

Operating your locomotive in the Command Control environment

- 1. Turn off track power and plug in the Command Base.** Be sure that the Command Base is connected to the outside rail or to the Common/Ground/U terminal on your track power supply.
- 2. Place your Subway set on Lionel or Lionel compatible 0-36 or larger track.**
- 3. Increase track voltage to full power (no more than 19 volts AC).** On PowerMasters, slide the CMD/CONV switch to CMD. Program Track Power Controllers to Command Control operation. **Do not power with 50 HZ AC.**

Caution! Power your Subway set with an alternating-current (AC) transformer only. Powering your Subway set with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

- 4. Press ENG and enter the ID# to address your Subway with your CAB-1 Remote Controller.** All Lionel Subway sets come factory-programmed as ID# 1.
- 5. Throttle up and move 'em out!** Your Subway set will respond to every command from your CAB-1 Remote Controller.

Operating the car doors in the TMCC environment

Each car features a lighted interior, and opening doors. In the TMCC environment, the doors are opened and closed using the CAB-1 Remote Controller. To open the left side doors, press **AUX1** and **F**. To open the right side doors, press **AUX1** and **R**. To close the doors on the left side, press **AUX2**, **F**, **AUX2**. To close the doors on the right side, press **AUX2**, **R**, **AUX2**. You may choose to lock the doors from opening on a certain side using the switches located under the roof-top hatch on each car. The switches are illustrated in Figure 3 on page 7.

Note! Any open door will close automatically as the train begins to move, unless they are locked in the open position.

Conventional transformer operations

Operating your Subway in the conventional environment

Your Subway is capable of operating in the conventional environment with nothing more than a standard Lionel alternating-current (AC) transformer.

- 1. Place your Subway on Lionel or Lionel-compatible 0-36 or larger track.**
- 2. Power your Subway at 12-18 volts with your alternating current (AC) transformer.**

Caution! Power your Subway with an alternating-current (AC) transformer only. Powering your Subway with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components. 60 HZ AC is required. **Do not power with 50 HZ AC.**

- 3. Wait three to eight seconds as your Subway determines whether it is in a conventional environment or a TrainMaster Command Control environment.**

When the Subway has determined that a TrainMaster Command Base is not connected to the track, the LEGACY RailSounds sound system will start. You are ready for operation in the conventional environment.

- 4. Move 'em out!**

Press the **DIRECTION** button on your transformer to sequence your Subway through the repeating pattern of operations: forward, neutral, reverse, neutral, and so on. You may also briefly turn off track power to advance the Subway to the next operating state. Adjust the throttle until your Subway moves at your desired speed.

Note! When placing your Subway on your layout for the first time, it will start out in neutral. Thereafter, it will start in forward after every power interruption lasting five seconds or longer.

We recommend that you operate your LEGACY Subway with The Odyssey II Speed Control System turned on. You may choose to operate your Subway without speed control by placing the Odyssey II Speed Control System switch to the OFF position.

Operating the car doors in the conventional environment

To open the doors in the conventional environment, use the bell button on your transformer. A short bell will open the doors on the left side of the car. A second bell will close the doors. To open the doors on the right hand side of the cars, you will need to lock out the left hand doors using the switches under the roof hatch.

A long bell (2 to 3 seconds) will open the door and additionally trigger the station announcement. A second bell will close them.

Note! Moving a door switch will lock the doors into their current position, either open or closed.

For proper operation, the doors require a voltage range of 8 to 18 volts (AC).

Maintaining and servicing your locomotive

Lubricating your Subway

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

When you find that the lubrication points illustrated in Figure 6 appear dry, lubricate your Subway after you have removed any accumulated dirt and dust. There are two basic rules to keep in mind when you are lubricating your Subway: use only a small amount of lubrication and avoid getting grease or oil on your Subway's wheels, roller pick-ups, or the track.

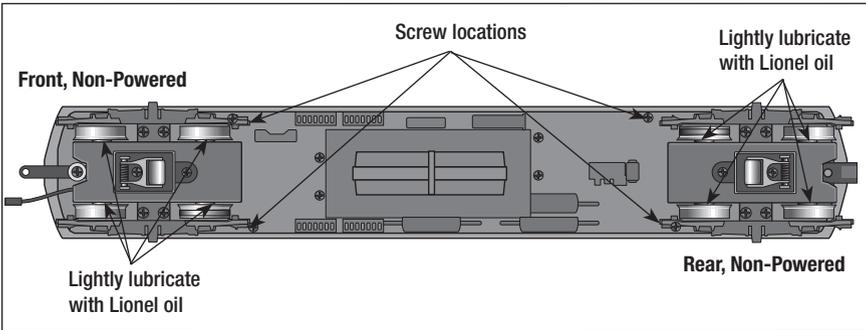


Figure 6. Lubrication points

Maintaining and servicing your locomotive

Servicing your Subway's lamps

General internal lighting in the cars is provide by two types of incandescent bulbs. Removing the screws as show in Figure 6 on page 10 will allow access to the interior of the cars. Due to the complexity of the disassembly required, we recommend that you take your Subway to your authorized Lionel Service Center for any lamp replacement.

Lamp Numbers:

Non-powered unit lighting (four required in each car)

610-8049-300

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 _____



©2010 LIONEL L.L.C., U.S.A.
PRINTED IN CHINA