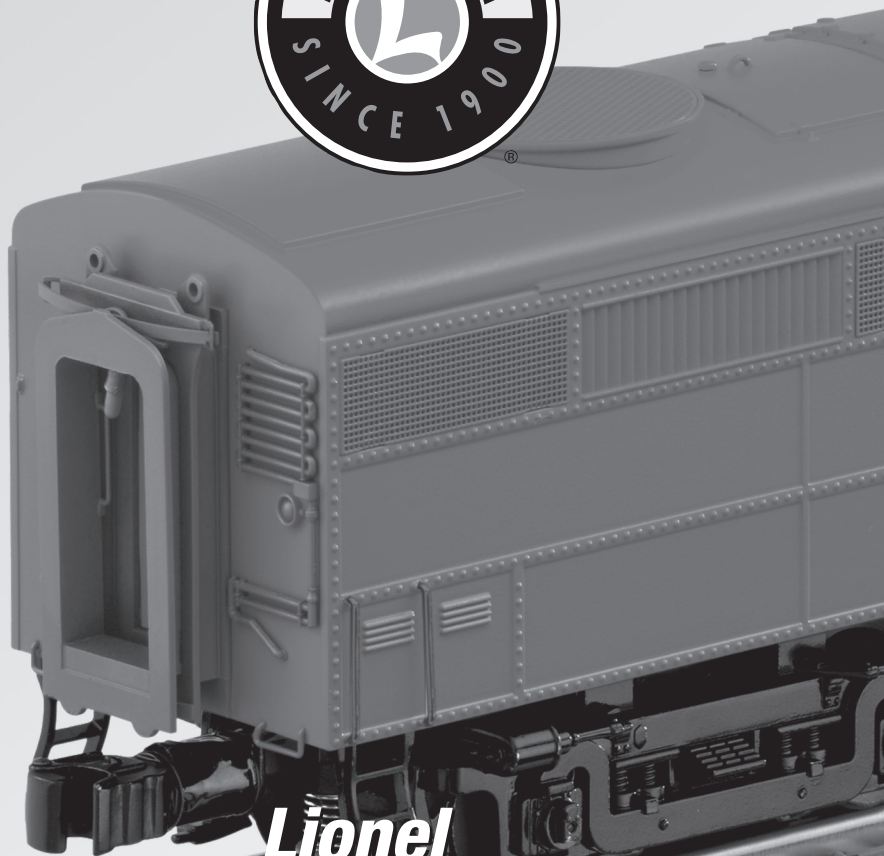




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***Lionel  
FB-2 Powered  
Diesel Locomotive  
Owner's Manual***

Featuring



# ***Congratulations!***

**C**ongratulations on your purchase of this Lionel LEGACY diesel locomotive! On the outside, this locomotive features numerous details and expert decoration in your favorite livery. Inside the body, this locomotive is equipped with some of the most advanced controls in model railroading. This powerful locomotive is ready for duty on your layout.

## **Contents of your locomotive box**

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**1 Powered locomotive**

**2 Replacement traction tires**

**1 Owner's manual**

**1 Smoke fluid funnel**

**1 Smoke Fluid Pipette**

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# Running your locomotive

**Note!** Power your locomotive with an alternating-current (50-60Hz AC) transformer only. Powering your locomotive with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

**Note!** Your locomotive requires Lionel or Lionel-compatible O-36 or larger track curves.

**Note!** Locomotive is factory programmed as ENG 1 (and hard coded as ENG 99).

## LEGACY Control operations

**F**or the finest operating experience, your locomotive is fully compatible with the LEGACY Control System. It will also operate on the original Lionel TrainMaster System (TMCC1) with limited features and also on the LEGACY Cab-1L / Base 1L operating system (again with reduced features.) Using the Lionel LEGACY (6-14295) will allow you to access ALL the features this locomotive has to offer.

Your commands are sent by the Remote Controller to the Command Base, which broadcasts a radio frequency that is distributed through the outside rails of your track to your locomotive. Your locomotive will not respond until it recognizes its unique ID#, so you can operate multiple Command-equipped locomotives on the same track at the same time. See page 10 to program a unique ID# for your locomotive.

1. Turn off track power, and then plug in the LEGACY Base and connect it to the track.
2. Place your locomotive on the track.
3. Increase track power voltage to full power (no more than 19 volts AC). If a circuit breaker trips when you turn on the Lionel power supply, check the wheels of your locomotive to make sure they are all securely on the track. Check to make sure the track is free of all metals that may cause a short circuit.
4. As illustrated in Figure 1, press ENG and 1 (or your programmed ENG ID#) to address the locomotive with your LEGACY CAB-2 Remote Controller.
5. Press the Start Up button on your LEGACY CAB-2 Remote, shown in Figure 2. Then, throttle up and move 'em out! Your engine sound will start up, and the locomotive-specific touch screen buttons will populate the remote. For more information on operating your locomotive with the LEGACY system, please refer to the LEGACY section of this manual. Additional information is also found in the LEGACY System Manual, available online at [www.lionel.com](http://www.lionel.com).

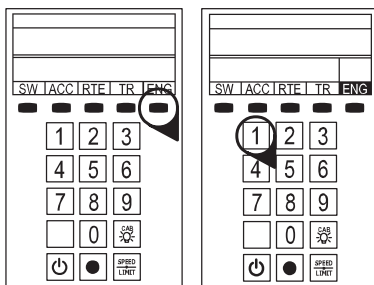


Figure 1. LEGACY engine selection

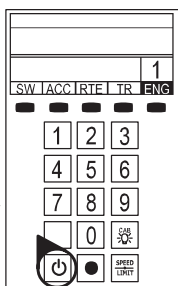


Figure 2. LEGACY start-up

## ***Running your locomotive***

**Note!** Power your locomotive with an alternating-current (50–60Hz AC) transformer only. Powering your locomotive with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

**Note!** Your locomotive requires Lionel or Lionel-compatible O-36 or larger track curves.

**Note!** Both of the locomotives in this are factory programmed as ENG 1 (and hard coded as ENG 99).

### **TrainMaster Command Control (TMCC) operations**

---

**F**or operation in the TrainMaster Command Control environment, you need a TrainMaster Command Base (6-12911) and a CAB-1 Remote Controller (6-12868). Refer to your TMCC System Manual for complete information. **To access all the locomotive's features, you must operate in the LEGACY environment, as discussed on the previous page.**

Your commands are sent by the CAB-1 Remote Controller to the Command Base, which translates the command and broadcasts a radio frequency that is distributed through the outside rails of the track 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.

- 1. Turn off track power, and then plug in the Command Base and connect it to the track.**
- 2. Place your locomotive on the track.**
- 3. Increase track voltage to full power (no more than 19 volts AC).** If a circuit breaker trips when you turn on the Lionel power supply, check the wheels of your locomotive to make sure they are all securely on the track. Check to make sure the track is free of all metals that may cause a short circuit.
- 4. Press ENG and 1 (or the ENG ID # you programmed) to address your locomotive with your CAB-1 Remote Controller.**
- 5. Throttle up and move 'em out.**

For more information, please refer to the TrainMaster Command Control operations section of this manual or the TMCC System Manual, available online at **[www.lionel.com](http://www.lionel.com)**.

# ***Running your locomotive***

## **Conventional transformer operations**

---

**Note!** For Conventional operation, a Command Base must **not be powered up anywhere in the area**, even if it is not connected to the track. If a base is detected, your locomotive will default to Command mode.

**Note!** Power your locomotive with an alternating-current (50-60Hz AC) transformer only. Powering your locomotive with a direct-current (DC) transformer, or in excess of 19 volts AC, may result in damage to sensitive electronic components.

**Note!** Your locomotive requires Lionel or Lionel-compatible O-36 or larger track curves.

- 1. With track power off, place your locomotive on the track.**
- 2. Power up the track.** If a circuit breaker trips when you turn on the Lionel power supply, check the wheels of your locomotive to make sure they are all securely on the track. Check to make sure the track is free of all metals that may cause a short circuit.
- 3. Move ‘em out!** Press the DIRECTION button on your transformer to sequence your locomotive through the repeating pattern of operations: neutral, forward, neutral, reverse, neutral, and so on. You may also briefly turn off track power to advance the locomotive to the next operating state. Adjust the throttle until your locomotive moves at your desired speed.

**Note!** When placing your locomotive on your layout for the first time and after power interruptions lasting longer than five seconds, it will start out in neutral.

**We recommend that you operate your LEGACY locomotive with Odyssey II Speed Control turned on.** You may choose to operate your locomotive without speed control by placing the Odyssey II Speed Control System switch to the NO ODY position. See Figure 4 on page 8 for the location of the switch.

## Locomotive basics

### Adding smoke fluid to your locomotive's smoke generators

**Y**our locomotive is equipped with a smoke generator that produces safe, clean, white smoke during operation. A reservoir beneath the stack contains the fluid and wick which, once saturated, supplies the heating element with the right amount of fluid. Add 10-20 drops to the duct (shown in Figure 3) to prime the locomotive or after being stored for an extended period of time, and then add 10 to 20 drops to refill when smoke production decreases. When refilling, **DO NOT EXCEED 20 DROPS** as this can cause your smoke units to become oversaturated allowing leakage onto the electronics. Note that operating your locomotives' smoke units without smoke fluid will cause damage to the heating element.

If you prefer to operate your locomotive without smoke, locate the smoke unit switch and slide it to the NO SMK position. Refer to Figure 4 on page 8 for the location of these switches.

**Note!** For best performance, we recommend 6-37841 Lionel Premium Smoke Fluid only.

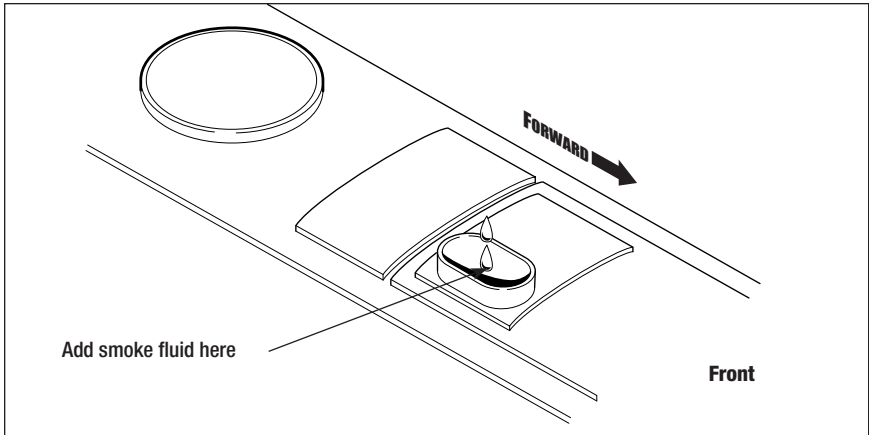


Figure 3. Stack location

# Locomotive basics

## Locomotive switch locations

The functions of your locomotive's switches are outlined below. Refer to Figure 4 for the location of the switches.

### Smoke Unit Switch (SMK/NO SMK)

Used to turn the smoke unit function on and off.

### Program-Run Switch (RUN/PGM)

Used to assign an ID# and to reprogram each locomotive in this for LEGACY and Command operation when the switch is in the PGM position. Also used to “lock” your powered locomotive in a single direction, or neutral, in conventional operation when the switch is placed in the PGM position.

### Odyssey II Speed Control System Switch (ODY)

Used to turn the Odyssey II Speed Control System on and off (powered unit only).

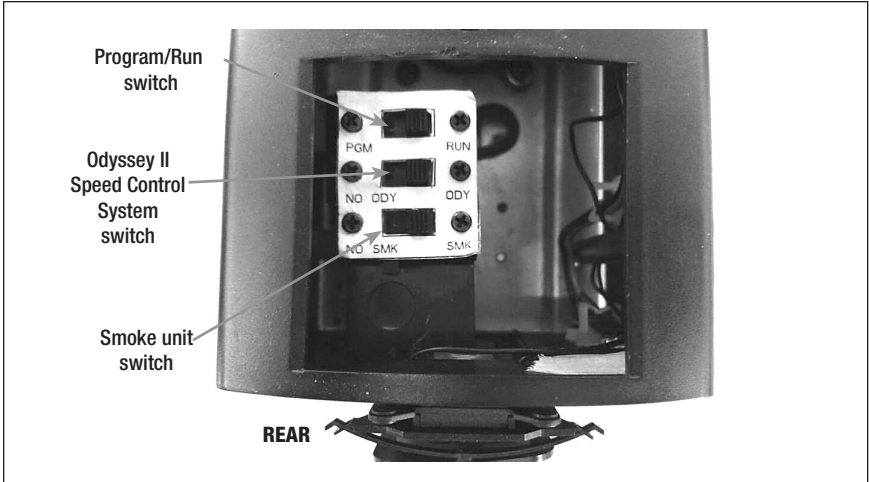


Figure 4. Switch locations



# Locomotive basics

## Assigning your locomotive a new ID# (LEGACY and TMCC)

---

**F**or operation in the LEGACY or TMCC environment, you will want to give this locomotive its own ID#. If you are operating this FB-2 with an FA-2 or FA-2 AA set, you'll want to follow the instructions on creating a lash up on page 10. The locomotive will respond to commands associated with its ID# while all other units will disregard these commands. ***This procedure is not necessary for conventional (non-Command) operation.***

**Note!** Program each locomotive's ENG ID# separately.

1. Slide the Program/Run Switch on your locomotive to the PGM position. See Figure 4 on page 8.
2. Place the locomotive on the track.
3. Connect the Command Base and plug it in.
4. Power up the track.
5. Press ENG on the CAB-1 or CAB-2 remote.
6. Enter the unique ID#. Choose any number from 1 to 98 that has not been assigned to another locomotive (ENG). We recommend using a part of your locomotive's road number.

**Note!** All LEGACY locomotives respond to ENG 99. We recommend that you reserve ID# 99 as a "universal" ID#.

7. Press SET. On the B unit there will be no indication the locomotive took the command.
8. Slide the Program / Run switch back to the RUN position.  
The locomotive's ID# has been. Be sure to record the new ID# for your reference.

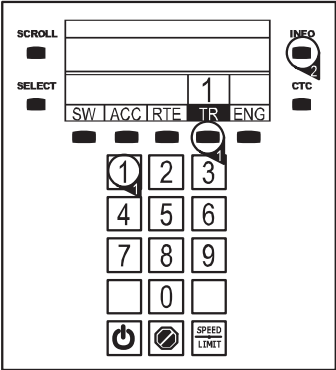
# Locomotive basics

## Lash-ups (for LEGACY operations only)

In the Command environment, building a lash-up allows you to control your locomotives as one in a prototypical manner. It is still possible to control any of the engines in the lash-up individually. When you issue a train command, the individual engine you were controlling will return to the group. If there is a difference in speed, the individual Engine will return to the speed of the lash-up at the rate set in the train momentum.

To build a lash-up, assign a unique engine (ENG) ID# to each unit. See page 9 for details. See page 17 for Lash-up instructions using TMCC CAB-1.

1. Address the train ID# you wish to create or edit, 1 to 99.
2. Press INFO.
3. Press BUILD softkey (button directly under BUILD).
4. Enter the front engine number. It is not necessary to enter ENG, just enter the #. It will appear in the blinking box.
5. Press ADD to add the front engine. The engine will move to the right and the blinking box will be ready for your next engine to be added.
6. Enter the second engine ID# in the blinking box.
7. Press ADD to add the second engine. The engine will move to the right and the blinking box will be ready for your next engine to be added.
8. Add all the engines you want in your lash-up in this manner.
9. To change the direction of an engine in your lash-up, turn the Velocity Throttle to move the engine you want into the blinking box. Then press DIR to change the direction of the engine.
10. To delete an engine in your lash-up, turn the red Velocity Throttle knob to move the engine you want to delete into the blinking box. Then press DEL.
11. To save your lash-up, press SET. Watch the onscreen prompts and wait until you see the message TRAIN CREATED.
12. Press CTC to exit to the operating screen.



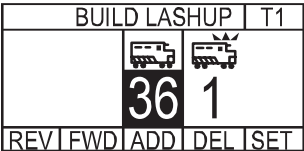
See reference numbers 1 and 2



See reference number 3



See reference number 4



See reference numbers 6 and 7

# LEGACY Control System operations

## The LEGACY CAB-2 Remote Controller

### Main Display

Displays real-time information about your railroad system. Displays real-time feedback of operation.

### Scroll Button

Navigates through the entire list of Engines, Trains, Switches, etc

### Select Button

Performs addressing by 3-4 digit road number.

### Touch Screen Key Pad

A group of touch sensitive keys with icons for each function. These keys serve many purposes and their icons change accordingly.

### Train Brake Slider

This slider is used to increase or decrease the amount of Train Brake affecting the engine or train.

### Train Link Button

Quick select of Train-Link devices (LEGACY Control System Version 1.3)

### AUX-1/Thru Button

Press to view the Control Panel while operating. Controls switch direction.

### Emergency Halt Button

Stops everything on layout; also stops recording playback.

### AUX-2/Out Button

Controls switch direction. Toggles all lights on/off, except lights that are wired to track power.

### Record Button

Used to record and play back events.

### Velocity Throttle

Throttle control over engines, also used to navigate thru info/options.

### Set Button

Used to Engine address and for programming.

### Info Button

Used to enter/view the info/options of selected components.

### CTC Button

Press and hold to turn your remote on and off. Tap this button to enter the remote and base options. Tap it again to return to the main screen.

### Soft Keys

These keys directly correlate to the 5 selection boxes located at the bottom of the main display. These are also used in the info/options menus to select options.

### Warning Sound Controller

Warning Bell and Variable Horn control. Pull down to sound Horn. Push up and release to trigger Warning Bell.

### Multi Controller

Boost, Brake, and Direction control. Rock forward for Boost, rock backward for engine brake, and press down for direction change. Click-hold-and rock for absolute direction selection.

### Front & Rear Coupler Buttons

Fire couplers.

### Feedback Button

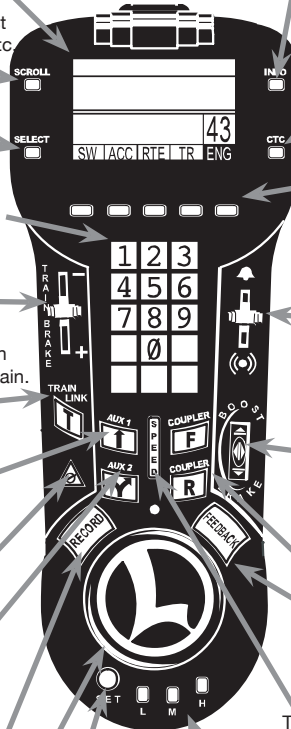
Toggle ON/OFF the vibration feedback feature in the CAB-2 Remote.

### Official R.R. Speed Control Bar

Toggles the touchscreen display of R.R. preset speeds and control panel.

### Low, Medium, High Momentum Buttons

Used to select the desired momentum of your addressed engine/train/accessory.



## LEGACY Control System operations

**Note!** This section is a brief overview of the LEGACY Control System. For a more in-depth explanation of the LEGACY Control System features, please see your LEGACY Control System Operations Manual, available online at [www.lionel.com](http://www.lionel.com).

### The Velocity Throttle

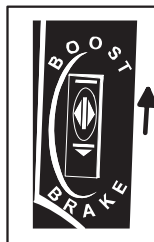
The Velocity Throttle (the red rotary knob on the bottom of your Lionel remote) is used to start your engine moving, slow it down, or speed it up. Use it simply by turning it clockwise (speed up) or counter-clockwise (slow down).



### The Multi-Controller

#### Direction

The direction of your engine toggles between forward and reverse at the touch of the Multi-Controller. Press the center of the Multi-Controller once, and your engine's lights will change directions and the engine will stop until you throttle up again in the new direction.

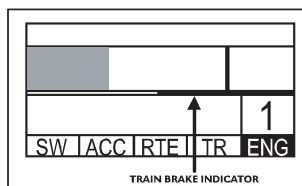


#### Boost & Brake

Boost and brake give you another way to control the speed of your train. Boost gives your loco a temporary increase in tractive power, and returns to the previous speed when you release the control, while the brake command slows you down more quickly than the Velocity Throttle alone.

### The Train Brake Slider

The Train Brake is used to slow down and limit the top speed of your train by adding a load. The more the Train Brake is applied by pulling the Train Brake Slider down, the more laboring is heard from the engine. Eventually Train Brake application will slow down the train and it is even possible to stop a train by pulling the Train Brake Slider all the way down. If your smoke unit is turned on, you'll also see more smoke as the slider is pulled down.



# LEGACY Control System operations

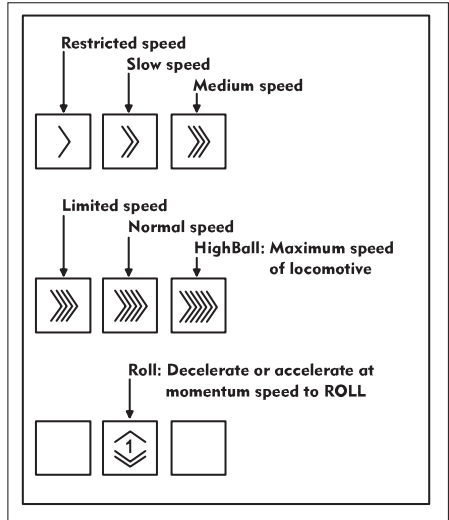
## The Speed Bar

The Speed Bar is used to select a new touch-screen Icon Control. This of touch-screen keys is used to select prototypical preset speeds. The speed of the engine changes with each press and release of a different Preset Speed key.

- Tap a key, and your locomotive will immediately begin moving to that speed.

You can also use the Velocity Throttle and other action controls in this mode and continue to use Preset speeds at the same time.

Press **AUX1** to leave the Preset speed mode and return to the Standard Control Panel. Press the speed bar to toggle between the Speed Control Panel and the Standard Control Panel.



# ***LEGACY Control System operations***

## **EFX Trim and EFX Bar Graph**

---

Smoke effects of the engine can be trimmed higher or lower depending on your operating preference. Pressing the EFX up button will increase the smoke output (if the smoke unit is turned on). Similarly, the EFX down button will decrease the smoke. A RESET command will return the EFX trim to its defaulting.

Notice that the current EFX level is displayed on the remote as a bar graph inside the soft key to the left of the ROLL button. The height of this graph varies with the EFX keys, throttle and train brake adjustments.

## **Leaving the Preset Speed Screen**

---

Use the Speed Bar to leave the Speed Panel and return to the Control panel. Press the Speed Bar to toggle between the Speed Control Panel and the Standard Control Panel.

# TrainMaster Command Control operations

## CAB-1 Remote Controller commands

The CAB-1 Remote Controller commands are detailed below. The corresponding RailSounds sound system effects are in bold italic type.



Releases the ElectroCoupler on the front of the Powered locomotive. *Coupler release sound.*



Releases the ElectroCoupler on the front of the Non-Powered locomotive.



Activates the numeric keypad. *Short air release sound.*



Controls switch direction. Toggles all lights on/off, except lights that are wired to track power.



Accelerates the locomotive with a clockwise rotation. Decelerates the locomotive with a counter-clockwise rotation. *Speed-dependent RPM sounds.*



Changes the locomotive's direction. The locomotive decelerates to a stop and continues in the opposite direction when you increase the throttle. *Air release sound.*



Increases the locomotive's speed while the button is pressed. Release the button to return to the initial speed. *Labored prime mover.*



Decreases the locomotive's speed while the button is pressed. *Squealing brake sounds.*



Shuts down all PowerMasters on your railroad. Stops all TrainMaster Command Control-equipped locomotives in operation. Use HALT only in emergency situations.



### Odyssey II Momentum

- L** 32 speed steps with low momentum
- M** 100 speed steps with low momentum
- H** 100 speed steps with medium momentum

# ***TrainMaster Command Control operations***

## **CAB-1 Remote Controller numeric keypad commands**

---

**W**hen you press the AUX1 button on your CAB-1 Remote Controller, you turn the numeric keypad into ten command buttons. After you press the **AUX1** button, you will be able to press any numbered button until you address a different product.



Your locomotive keeps track of its fuel level. Higher engine run levels and/or heavy labor use fuel at a faster rate.



Turns off the smoke units.



Turns on the smoke units if the smoke unit's switches are in the ON position. Be sure to add smoke fluid before turning on the smoke unit to prevent damage to your locomotive.

### **Note!**

**AUX1, 8 and 9** function only if the locomotive's smoke unit switch is in the ON position.

## **Setting the smoke level**

---

**Y**ou may adjust the level of smoke production using your Remote. Use the sequences below.

**Low** smoke production:      **AUX2, 9, L, AUX2**

**Medium** smoke production:      **AUX2, 9, M, AUX2**

**High** smoke production:      **AUX2, 9, H, AUX2**



# ***TrainMaster Command Control operations***

## **Building a lash-up**

---

**T**rainMaster Command Control allows you to couple your Command Control-equipped locomotives together, forming a multiple unit lash-up. Just like with the real railroads, lash-ups allow you to pull longer trains and climb steeper grades. You will find that the lighting operates prototypically—the lead unit's headlight and interior lights are illuminated when the train is in forward, and the rear unit's headlight and interior lights are on when the train is in reverse. For more information, refer to your TrainMaster Command Control manual.

To build a lash-up, assign a unique engine (**ENG**) ID# to each unit. Arrange the units on the track and couple them together. The Command reverse unit switch must be set to RUN. See Figure 4 on page 8.

**Note!** If you press a wrong button, start over with that particular unit. The assignment isn't saved until you press **SET**.

**Note!** The CrewTalk/TowerCom and SignalSounds features of RailSounds are disabled on locomotives that are programmed as middle or rear units in a lash-up. Only the diesel locomotive sounds are active.

### ***Start with the lead (front) unit***

1. Press **TR** and enter your lash-up ID# (1-9) on your CAB-1 Remote Controller. No other lash-up or track should share this ID#.
2. Enter the unique ID# of the lead unit.
3. Press **F**.
4. Press **SET** on the CAB-1 Remote Controller.

### ***Add the middle units, one at a time***

1. Press **TR** and enter the lash-up ID# (1-9) on your CAB-1 Remote Controller.
2. Enter the unique ID# of the middle unit.
3. Press the **DIRECTION** button if the unit is facing rearward.
4. Press **SET** on the CAB-1 Remote Controller.
5. Repeat these steps for any additional middle units.

### ***Complete the lash-up by adding the rear unit***

1. Press **TR** and enter the lash-up ID# (1-9) on your CAB-1 Remote Controller.
2. Enter the unique ID# of the rear unit.
3. Press **R**.
4. Press the **DIRECTION** button if the unit is facing rearward.
5. Press **SET** on the CAB-1 Remote Controller.

You are now ready to operate your locomotive as a lash-up. Simply press **TR** and enter the lash-up ID#, then use your CAB-1 Remote Controller to operate your locomotives. To operate an individual unit within the lash-up, press **ENG** and enter the ID# for that particular unit.

## ***Conventional transformer operations***

### **Locking your locomotive into a single direction**

---

**W**hen the Command reverse unit switch is in the RUN position on the powered unit, your locomotive sequences through a repeating pattern of operations: forward, neutral, reverse, neutral, and so on.

To “lock” your locomotive into a single direction (for example, to operate in forward only), you can deactivate the Command reverse unit’s sequencing function.

- 1. Use your transformer’s DIRECTION button or interruptions in track power to get your locomotive moving slowly in the desired direction or into neutral.**
- 2. Slide the Program / Run Switch on the powered unit to the PGM position. At this point, the locomotive is “locked” into your chosen direction. See Figure 4 on page 8 for the location of this switch.**

To restore the forward-neutral-reverse sequence, just slide the Command reverse unit switch back to the RUN position.

# ***Odyssey II Speed Control system operations***

## **Odyssey II Speed Control operations**

---

**T**he Odyssey II Speed Control system is “cruise control” for your locomotive. Once the speed control is turned on, your locomotive will maintain a constant speed, no matter what load is placed on the locomotive or what grades you have on your layout. The Odyssey II Speed Control system also allows for extremely slow movement that will amaze any scale enthusiast.

## **Odyssey II Speed Control LEGACY Control operation**

---

**I**n LEGACY Control System CAB-2 mode, Odyssey II Speed Control system provides 0-199 speed steps. For a more in-depth explanation of the LEGACY Control System features, please see your LEGACY Control System operations manual, available online at [www.lionel.com](http://www.lionel.com).

## **Odyssey II Speed Control TrainMaster Command Control operation**

---

**W**hen the Odyssey II Speed Control system is activated, changes in the speed of the locomotive will correspond to each signal from the Command Base. For example, when you address the locomotive and slowly turn the throttle knob, the first flash of the red light on the Command Base corresponds to the first speed step, which is the slowest speed of the locomotive. The locomotive will maintain that speed until you increase or decrease the throttle.

In TrainMaster Command Control CAB-1 mode, Odyssey II Speed Control System now provides selectable resolution and momentum. See the table on page 19.

## **Odyssey II Speed Control conventional transformer operation**

---

**T**he Odyssey II Speed Control system is automatically operational when you operate your locomotive in conventional (non-Command Control) mode, as long as the Odyssey II Speed Control system switch is in the ON position (see Figure 4 on page 8). This means that your locomotive will maintain a constant speed, compensating for grades, loads, and turns. Simply use your transformer's throttle to adjust the speed of your locomotive.

### **Note!**

Because of the way that speed control operates in conventional mode, you will notice a slight delay between adjusting your transformer throttle and the change in the speed of your locomotive. If you desire instantaneous response to throttle changes, turn off the Odyssey II Speed Control system using the Odyssey II Speed Control switch (see Figure 4 on page 8).

# ***Maintaining and servicing your locomotive***

## **Reprogramming your locomotive to restore features**

---

If your locomotive is unresponsive to your commands in the Command Control environment, we recommend that you follow this procedure to reset your locomotive. All factory defaultttings will be restored when you reprogram the locomotive.

- 1. Slide the Program-Run switch to the PGM position.**
- 2. Plug in and connect your LEGACY Base OR TMCC1 Base.**
- 3. Place your locomotive on the track, then power up the track. Reprogram only one unit at a time.**
- 4. Press ENG and enter the locomotive's ID#.**
- 5. Press SET.**
- 6. Turn off track power and wait ten seconds.**
- 7. Slide the program run switch back to the RUN position.**

At this point, your locomotive has been reset. Restore power to the track and operate the locomotive as usual. Be sure to use the ID# entered in Step 4.

# Maintaining and servicing your locomotive

## Lubricating your locomotive

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**H**elp your Lionel locomotive lead a long and productive life on your railroad by maintaining it properly. To keep your locomotive 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 5 appear dry, lubricate your locomotive 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.

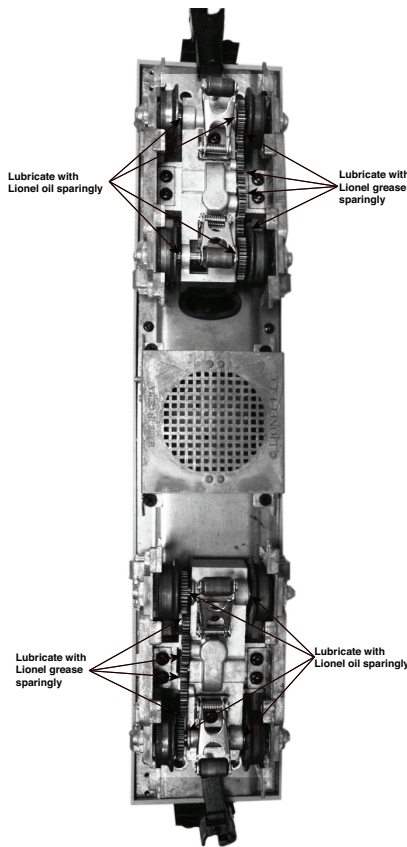


Figure 5. Lubricating the powered B-unit

# Maintaining and servicing your locomotive

## Locomotive diagnostics

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**Y**our locomotive includes built-in diagnostics to monitor the condition of the main drive motor and smoke system. If a problem is detected, the locomotive's cab light will blink a diagnostic code.

If you see the light on the end of the locomotive flashing, press **RESET** (for LEGACY operation), **0** (for TMCC operation), or **DIRECTION**/power interruption (for conventional operation) to attempt to clear the problem. The locomotive will immediately check itself again. If the problem persists, the cab light will blink the code again.

Note that smoke-related errors can be reset a maximum of three times. On the third try, if the problem still persists, the smoke unit will be shut down. After reaching the three-cycle limit, the power must be cycled (turn off and back on) and then you may try to reset three more times. If the problem persists, the locomotive must be returned to a local Factory Trained Authorized Lionel Service Station or contact Lionel Customer Service for repair.

**Note!** Turning the smoke unit switch to the off position will disable diagnostic checks of the smoke system.

Number of Blinks	Diagnostic Code Description
1	Main drive motor stalled.
2	Smoke 1 element problem.
3	Smoke 1 fan problem.
4	Not applicable.
5	Not applicable.

# ***Maintaining and servicing your locomotive***

## **Servicing your locomotive's LEDs**

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**Note!** If the locomotive is powered up and the lights are not on, check that the **AUX2** command was not used to turn the lamps off.

**Y**our B unit is equipped with a single LED for the rear headlamp which is expected to last for the life of the locomotive. The LED's are not user serviceable. If service is required, we recommend that you have your locomotive serviced at a Factory Trained Authorized Lionel Service Station.

## **Replacing the traction tires**

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**Y**our locomotive is equipped with traction tires to increase the tractive effort of your locomotive and allow it to pull more cars at once.

During the course of normal operations, the traction tires may become worn out. To replace the traction tires, remove the side frame screws from the underside of the trucks and lift away the side frame. Remove the worn tire, then slip the replacement around the wheel. Reposition the side frame on the truck and secure it with the two screws.

Two replacement tires are included with your locomotive. If additional tires are needed, see our parts list for this locomotive on [www.lionel.com](http://www.lionel.com) for a replacement part number and ordering information.

## Lionel Limited Warranty Policy & Service

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**T**his 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.**

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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

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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](http://www.lionel.com).

If you prefer to send your Lionel product directly to Lionel, for repair you must **FIRST** call 586-949-4100 extension 2 or write to Lionel Customer Service, 6000 Victory Lane, Concord, NC 28027. 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

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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](http://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 \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Product Number \_\_\_\_\_

Product Description \_\_\_\_\_



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