CAUTION: Use only with Lionel-approved missiles.
Spring mechanisms require adult supervision.
For ages 14 and Up.
Congratulations on your purchase of the Lionel Missile Launch Set! This classic set is lead by the #44 Missile Launcher Locomotive, now capable of firing one missile at a time with TrainMaster Command Control! A #3419 Helicopter Launch Car, a #6824 Submarine Car, #6640 Missile Launching Car, and a #6824 Stretcher Caboose follow the locomotive to support the action.

**Missile Launcher Locomotive features**

- TrainMaster Command Control equipped
- Powerful Pullmor motor
- ElectroCoupler at the rear of the locomotive
- Magne-Traction track gripping system
- Operating headlights
- Operating red light on roof
- Four firing missiles

**Rolling stock features**

- Die-cast metal sprung trucks
- Launching helicopter on the #3419 Helicopter Launch Car (Remote-Control Track section required, available separately)
- Submarine on the #3820 Submarine Car
- Launching missile on the #6640 Missile Launching Car
- Lighted interior in the #6824 Stretcher Caboose

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Transformer operations

Running your Missile Launcher Locomotive with a Lionel transformer

1. **Place your Missile Launcher Locomotive on Lionel or Lionel-compatible O gauge track.**
   - Set the COMMAND/CONVENTIONAL switch to the CONVENTIONAL position. Refer to Figure 1 below.

   ![Figure 1. COMMAND/CONVENTIONAL switch](image)

2. **Power up your Missile Launcher Locomotive with your transformer.**
   - Your Missile Launcher Locomotive is designed to operate on 8-18 volts alternating current. Virtually all Lionel and Lionel-compatible alternating-current transformers are suitable.

   **Caution!** Do not power your Missile Launcher Locomotive with direct current (DC). Damage to sensitive electronic components may occur.

   **Note!** When you first power up your track, the Missile Launcher Locomotive will wait between 3 and 8 seconds as it “listens” for digital language from the TrainMaster Command Base (available separately). When the locomotive has determined that it’s on a conventional (non-Command) railroad, the Missile Launcher Locomotive’s headlights will illuminate. At this point, the Missile Launcher Locomotive is in neutral. (This occurs when placing the Missile Launcher Locomotive on your railroad for the first time. Thereafter, it will start in forward following every five-second power interruption.)

3. **Move ‘em out!**
   - Get your Missile Launcher Locomotive moving. Press the DIRECTION button on your Lionel transformer. This sequences the Lionel reverse unit to the next operating state.
   - Adjust track voltage until your Missile Launcher Locomotive moves at your desired speed. To increase speed, increase track voltage. To decrease speed, reduce voltage. To stop the locomotive, turn off track power.
   - See page 5 for information on locking your Missile Launcher Locomotive in a single operational state.
Transformer operations

Locking your Missile Launcher Locomotive into a single operational state

To select a single operational state for your Lionel Missile Launcher Locomotive (for example, forward only), you can deactivate the Command reverse unit’s sequencing function with the Command reverse unit switch.

Get your locomotive moving in the desired direction, then slow it down without stopping. Slide the figure toward the rear of the locomotive as illustrated in Figure 2. The Missile Launcher Locomotive is now “locked” into your chosen direction.

When you no longer want single-direction operation, just slide the figure toward the front of the locomotive.

**Note!** Your locomotive’s reverse unit will “reset” to forward after any interruption lasting five seconds or longer, regardless of the original locked-out direction.

Figure 2. Command reverse unit switch
Your Missile Launcher Locomotive is equipped with one ElectroCoupler. To uncouple rolling stock from your Missile Launcher Locomotive’s ElectroCoupler in the non-Command environment, you must rely on a piece of rolling stock equipped with Lionel magnetic couplers coupled directly to your Missile Launcher Locomotive’s ElectroCoupler. As illustrated in Figure 3, the magnetic coupler on the rolling stock will then react to the magnetic field generated by a Lionel Remote-Control Track section (available separately, 6-65530 for O gauge, 6-65149 or 6-12746 for O-27 gauge). Place your rolling stock’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 coupler opens.

**Note!** Your Missile Launcher Locomotive’s ElectroCoupler will NOT open manually or by using a Remote-Control Track section.

Figure 3. Trigger disc operation
Transformer operations

Firing your locomotive’s missiles in the non-Command environment

Your locomotive is armed with four plastic missiles. In the non-Command environment, the missiles are fired one at a time using a Remote-Control Track section (available separately, 6-65530 for O gauge or 6-12746 for O-27 gauge).

Note! The O-27 Uncoupling Track section (6-65149) and the FasTrack Uncoupling Track section (6-12020) will not operate the missile launching function.

1. Pull back the metal firing arms and place the four missiles on the locomotive’s launching platform. Be sure that the missiles lie flat on the platform. Refer to Figure 4.
2. Position the rear truck on the Remote-Control Track section so that the contact shoe rests on the extra control rails.
3. Press UNLOAD on the Remote-Control Track section controller. One missile will launch each time the button is pressed.

Note! You can also launch the missiles with the lever at the rear of the locomotive. Each time you pull the lever to the left, a missile will launch.

Figure 4. Arming the Missile Launcher Locomotive
TrainMaster Command operations

The Command Control environment

TrainMaster Command Control is the advanced model railroad control system from Lionel. TrainMaster Command Control gives you the power to operate multiple Command-equipped locomotives on the same track, at the same time.

To operate in Command mode, you need a Command Base (6-12868) and a CAB-1 Remote Controller (6-12911). Find them both at your authorized Lionel retailer.

1 Place your Missile Launcher Locomotive on Lionel or Lionel-compatible O gauge track.

- Set the COMMAND/CONVENTIONAL switch to the COMMAND position. Refer to Figure 1 on page 4.
- Make sure track power is off before placing the locomotive on the track.
- Make sure your Lionel Command Base is plugged-in and its communications wire is connected to the COMMON post on your Lionel transformer or the U terminal on any of your installed PowerMasters.
- Once positioned on the track, increase track voltage to FULL (no more than 19 volts). On PowerMasters, slide the CMD/CONV switch to CMD.

2 Address your Missile Launcher Locomotive using your CAB-1 Remote Controller.

- Press ENG and 1 on the numeric keypad of your CAB-1 Remote Controller. This command is sent by the CAB-1 Remote Controller to the Command Base, which then translates your command into digital code. That code is sent around your railroad’s outside rails in the form of a digital “halo.” All Command-equipped Lionel locomotives listen to this digital communication, but they do not respond until they hear their individual ID number—in this case, “1.”
- The digital language of TrainMaster Command—and not track power—controls the actions of Command-equipped Lionel engines. Track power is simply like gasoline in the tank of your car—it gives you the power to go places, but it doesn’t tell you where to go or how fast to get there.
- All Command locomotives come factory-programmed with an ID# of “1.” To change the ID# of your Missile Launcher Locomotive, see page 11.

3 Move ‘em out!

- Throttle up or press any command button on the CAB-1 Remote Controller. Your Missile Launcher Locomotive will respond to your every command.
**TrainMaster Command operations**

**Running your Missile Launcher Locomotive in the TrainMaster Command environment**

---

**Example**  
**Address Locomotive #1**

PowerMasters set to CMD or traditional power supplies ON FULL (no more than 19 volts)

Press ENG

Press 1 (the ID#)

Throttle up/press any command button

---

Your Command-equipped Missile Launcher Locomotive comes factory-programmed with an ID# of “1.” To get your Missile Launcher Locomotive in action, set PowerMasters to CMD or set all power supplies on full (no more than 19 volts). Press ENG and 1 on your CAB-1 Remote Controller. Turn the throttle or press any command button; your Missile Launcher Locomotive is ready for Command operations.

---

**CAB-1 commands for your Missile Launcher Locomotive**

Press and hold to fire the missiles.

Rear coupler releases.

Activates the numeric keypad.

Press AUX2 to turn your Missile Launcher Locomotive’s headlights on and off.

Turn the THROTTLE to the right to accelerate, left to decelerate.

Press HALT to shut down all PowerMaster electrical outputs on your railroad. Stops all Command-equipped locomotives in operation.

---

**Note!** Use HALT only in emergency situations.

---

Press DIRECTION—the locomotive decelerates to a complete stop; turn the throttle up, and the locomotive will accelerate in the new, opposite direction. There is no neutral state.

Press and hold BOOST for extra power. Release BOOST and return to the Missile Launcher Locomotive’s previous speed.

Press and hold BRAKE to slow down or stop. Release BRAKE and return to the previous speed.

---

**Beneath this panel**

Use HALT only in emergency situations.
TrainMaster Command operations

Tuning your Missile Launcher Locomotive’s performance

**MOMENTUM**

TrainMaster Command’s momentum feature simulates the labored performance of a locomotive pulling a heavy load. Press L, M, or H (located under the CAB-1 Remote Controller’s removable panel) for light, medium, or heavy momentum. The Missile Launcher Locomotive’s Command reverse unit remembers this setting until you change it. For quick locomotive response, choose L.

**BRAKING AND BOOSTING**

There’s more to starting and stopping than just turning the CAB-1 throttle. Use the BOOST and BRAKE command buttons—they give you incremental control of speed and are the superior way to handle grades, gradual stops-and-starts, and more.

**HIGH VOLTAGE SETTING**

Press SET, and the headlights will flash. Get your locomotive moving to the maximum speed you want it to run, then press BOOST. Use this to keep your locomotive from derailing at excessive speeds. Turn off the high voltage setting by pressing SET, then BOOST, holding each for one second.

**STALL**

Make your Missile Launcher Locomotive feel more responsive by setting a “stall” voltage. Get your locomotive moving, then press SET; the Missile Launcher Locomotive will stop. Turn the throttle clockwise to get the locomotive moving, then decrease speed until the locomotive just stops. Press SET again; the Command reverse unit remembers the stall setting until you change it. To clear the stall setting, press SET twice, holding it for one second each time.

These settings will be lost when you assign a new engine ID number.
Assigning your Missile Launcher Locomotive a new ID#

As your fleet of Command-equipped Lionel locomotives grows, you’ll want to give your Missile Launcher Locomotive a more individualized number. Choose from any number between 1 and 99.

Slide the figure toward the rear of the locomotive. See Figure 2 on page 5. Plug in the Command Base and place the Missile Launcher Locomotive on track, then power up. Using your CAB-1 Remote Controller, press ENG, your chosen locomotive ID#, then press the SET button located under CAB-1 Remote Controller’s removable panel. See the headlights flash; that’s the Command reverse unit confirming the new ID#. Slide the figure back toward the front of the locomotive. Your Missile Launcher Locomotive is ready for operation with its all-new ID#.

We recommend that you choose an easy to remember ID# for your engine. Some possibilities are part of the engine road number, your age, or any two digit number that is not used by another engine. Write the number on a small piece of tape and put this on the bottom of the fuel tank to aid in remembering.
TrainMaster Command operations
Reprogramming the Command reverse unit to restore features

Due to the inevitable derailments and static, it is possible that your Command reverse unit could someday lose its setup program. The symptom of this condition would be unresponsiveness in Command mode. This can be easily remedied by “reprogramming” your Command reverse unit using the following steps.

**STEP 1:** Slide the figure towards the rear of the locomotive. See Figure 2 on page 5.

**STEP 2:** Plug in your Command Base.

**STEP 3:** Place the locomotive on track, then turn on power to your track.

**STEP 4:** Press **ENG**, then input the locomotive’s ID#. Press **SET**.

**STEP 5:** Press **ENG**, the ID#, **AUX1**, then press 8 for your locomotive.

**STEP 6:** Turn off power to your track and wait ten seconds.

**STEP 7:** Slide the figure towards the front of the locomotive.

**STEP 8:** Place the locomotive back on track, then turn power on to the track.

**STEP 9:** Press **ENG** and the ID#, then operate as normal.
Help your Lionel Missile Launcher 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 (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 Missile Launcher Locomotive’s wheels or your track. You’ll know your Missile Launcher Locomotive requires lubrication when visual inspection reveals dryness on the parts indicated in Figure 5. Remove accumulated dirt and dust before lubricating, and always lubricate any locomotive emerging from prolonged storage.

---

**Figure 5. Lubrication points**
Maintaining and servicing your Missile Launcher Locomotive

Replacing your Missile Launcher Locomotive’s lamp and LEDs

The lamp on the top of your locomotive may require replacement during the course of normal operations. To replace the lamp, gently pry off the red lens. See Figure 6. Pull the expired lamp out of the socket and replace it with part no. 610-8462-300. When replacing the lens, be sure that the three tabs fit properly in the roof opening.

Your Missile Launcher Locomotive also features two LED headlights. The LEDs are expected to last the life of the locomotive. Replacement of the LEDs should be performed by an authorized Lionel Service Center only.

Figure 6. Lamp replacement


Operating the rolling stock

Launching your helicopter

Launch your helicopter using a Remote-Control Track section (available separately, 6-65530 for O gauge; 6-65149 or 6-12746 for O-27 gauge; or 6-12020 for FasTrack layouts).

1. Slide the metal lever away from the helicopter platform so that the metal locking mechanism catches each of the three “teeth” along the sides of the platform/spool.

   **Note!** If the metal locking mechanism is not in position to capture each tooth, the platform will unwind immediately.

2. Rotate the helicopter platform/spool clockwise approximately seven to eight clicks. Do not over-tighten the mechanism.

3. Next, place the helicopter on the launching platform as illustrated in Figure 7. The tail should rest on the black support structure to the rear of the launching platform, and the body of the helicopter should rest on the launching platform.

   **Note!** The notches or teeth in the center of the platform and on the bottom of the helicopter must fit together. Rotate the helicopter blades while the helicopter is in position until these notches fit together.

4. Position the flatcar over the Remote-Control Track section and press UNCOUPLE on the controller. The helicopter will take flight. To launch the helicopter manually, press down the launching tab on the side of the flatcar.

   **Caution!** The blades of the helicopter rotate to provide lift. Keep clear of the flatcar when launching the helicopter.

---

Figure 7. Preparing the helicopter for launch
Operating the rolling stock

Removing the submarine from the flatcar

To detach the submarine from the car, simply slide it forward or backward until the ribs on the submarine body clear the brackets on the flatcar. Refer to Figure 8.
To reattach the submarine, slide the ribs into the brackets and pull the body forward.

Figure 8. Submarine attachment
Your submarine features a rubber band-operated propeller. Set the mechanism by winding the nose cone.

1. Pull out the propeller lock to prevent the propeller from turning while you wind the mechanism. Refer to Figure 9 for the location of the lock.

2. Wind the nose cone clockwise until the rubber bands are completely knotted in a double spiral as illustrated in Figure 10.

   **Note!** Overwinding the rubber bands may cause them to break.

3. Push in the lock to activate the propeller.
Operating the rolling stock

Replacing the rubber bands

During the course of normal operations, the rubber bands may require replacement. Replace the rubber bands with those of a similar size. Refer to Figure 11.

1. Lift off the submarine’s nose cone and remove the bottom cover by sliding it out of the ribs. Clear away any pieces of the broken rubber bands.

   **Note!** Do not remove the foam block. The foam provides buoyancy for the submarine when it is in the water.

2. Hook three rubber bands around the nose cone hook.

3. Pull the rubber bands into the submarine body as you replace the nose cone.

4. Hook the rubber bands around the tail-end hook.

   **Note!** A pair of tweezers may help you to position the rubber bands on the hook.

5. Slide on the bottom cover.

![Figure 11. Replacing the rubber bands](image)

Operating the submarine in water

If desired, the submarine can be operated in water. Be sure that the submarine is completely dry before placing it back on the flatcar or your layout.

**Caution!** Do not expose the flatcar or your trains to water.

1. Wind the rubber bands as described previously in the Operating the propeller mechanism section.

2. Position the rudders to control the direction.
   - Angle rudder “A” downward to make the submarine dive.
   - Angle rudder “A” upward to make the submarine surface.
   - Angle rudder “B” to the right or left to make the submarine turn.

3. Place the submarine in the water and release the propeller lock.
Operating the rolling stock

Operating the Missile Launching Car

Place your missile on the rotating missile launcher, then choose your target! Follow these steps and refer to Figure 12 as you arm the Missile Launcher.

**Caution!** Keep clear of the missile and the launching mechanism.

1. Press down on the arming lever until the boom locks in the horizontal position. Refer to Figure 12.

2. Place the missile on the boom, fitting the firing arm into the slot in the tail of the missile.

3. Cock the firing arm by pushing back the missile and firing arm against the spring. The firing arm will lock into place.

**Note!** The boom must be fully lowered for the firing arm to lock in the firing position.

4. Launch the missile by pressing the launch button on the back of the missile launcher.

Figure 12. Missile launcher
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__________________  

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